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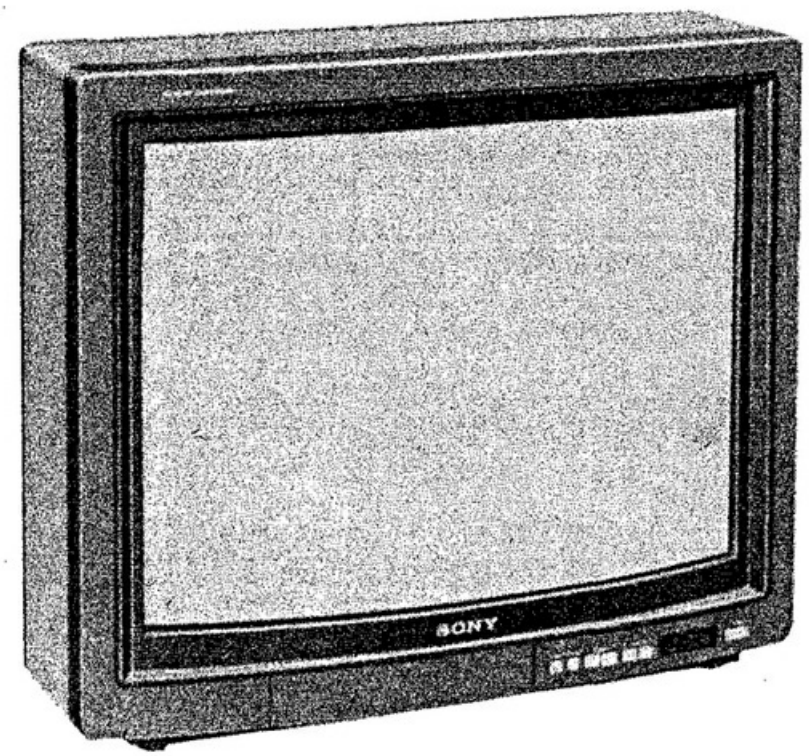
SONY TRINITRON KV-25XBR SERVICE MANUAL



Quick Links

Location of Controls
Outline
Set-Up
Connections
Circuit Boards Location
Electrical Parts List
Remote Commander

Table of Contents

Table of Contents
Location of Controls
Set-up
Presetting Channels
Applications with Other Connections
Back Cover Removal
Picture Tube Removal
Beam Landing
Convergence
White Balance
Focus Adjustment
A Board Adjustment
Board Adjustment
Circuit Boards Location
Block Diagram
Schematic Diagram
D Board
A Board
GA Board
Board
T2 BOARD
T4 BOARD
XA Board
P Board
REMOTE COMMANDER
Other ManualsLib Projects

KV-25XBR

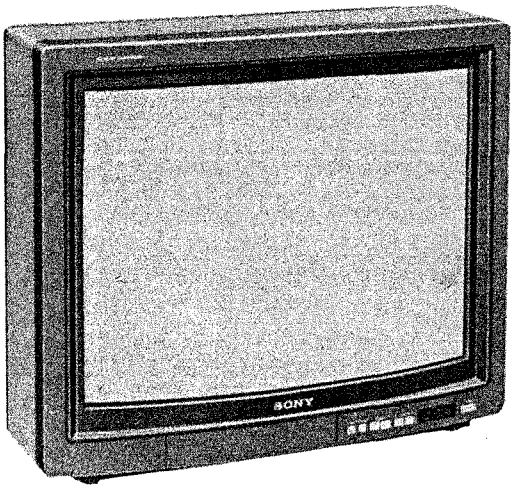
RM-724/APM-X3U

3652

SERVICE MANUAL

US Model

Chassis No. SCC-595B-A



P2B CHASSIS

December, 1984

SPECIFICATIONS

Television system
American TV standards

Channel coverage
VHF: 2–13
UHF: 14–69
Cable TV: 1–125

Picture tube
Microblack Trinitron
25-inch picture measured diagonally
114-degree deflection

Antenna
75-ohm external antenna terminal for VHF/UHF/CATV

Inputs
VIDEO 1, 3 INPUT (phono jacks)
Video: 1 V p-p, 75 ohms unbalanced, sync negative
Audio: 408mVrms (100% modulation, 47 kilohms)
VIDEO 2 IN AV (AV jack)
Video: 1 Vp-p, 75 ohms unbalanced, sync negative
Audio: 408mVrms (100% modulation, 47 kilohms)
RGB MULTI INPUT (See next page.)
CONTROL IN (minijack)
5V p-p
75-ohm external antenna terminal for VHF/UHF/CATV
AUX 75-ohm auxiliary antenna terminal
FROM TV STAND connector for the optional SU-171 TV stand

Outputs
TV OUT (AV jack)
Video: 1 Vp-p, 75 ohms unbalanced, sync negative
Audio: 408mVrms (100% modulation, 5 kilohms)
MONITOR OUTPUT (phono jack)
Video: 1 Vp-p, 75 ohms unbalanced, sync negative
Audio: 408mVrms (100% modulation, 5 kilohms)
CONTROL OUT (minijack)
5V p-p
PHONES (stereo minijack)
Accepts 8-ohm headphones
SPEAKER
Accepts speakers of 8 ohms
TO CONVERTER terminal

Power requirements
120V AC, 60 Hz

Power consumption
185 W (max.)
1.5 W (in standby condition)

Dimensions
635 × 547 × 478 mm (25 × 21 5/8 × 18 7/8 inches) without speakers
700 × 547 × 478 mm (27 5/8 × 21 5/8 × 18 7/8 inches) including speakers

Weight (without speakers)
45 kg (99 lb 4 oz)

— Continued on page 2 —

TRINITRON® COLOR TV

SONY®

MICROFILM

CTV

3652

RGB MULTI INPUT (34-pin plug)

Pin No.	Signal assignment
1	+5 V power supply
2	+5 V power supply
3	Audio (R) input ground
4	Ground
5	Remote control ground
6	Composite video output ground
7	Audio (L) input ground
8*, 9*, 10*	Ground
11	Ground
12*, 13*	Ground
15*	Ground
16	Ground
20	Audio (R) input
21	Mode select
23	Composite video output
24	Audio(L) input
25	Red input
26	Green input
27	Blue input
29*	Blanking input
30*	H. sync or composite sync
31*	V. sync
33	RGB/NORMAL mode select
34	Audio select
14, 17, 18, 19, 22, 28, 32	Not in use

* For No. 8 and 25, 9 and 26, 10 and 27, 12 and 29, 13 and 30, or 15 and 31 connections, use a twisted-pair lead.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

TABLE OF CONTENTS

Section	Title	Page
1.	**OUTLINE**	
1-1.	Location of Controls	6
1-2.	Set-up	7
1-3.	Presetting Channels	10
1-4.	Applications with Other Optional Equipment	11
1-5.	Connections	12
2.	**DISASSEMBLY**	
2-1.	Back Cover Removal	13
2-2.	Picture Tube Removal	13
3.	**SETUP ADJUSTMENTS**	
3-1.	Beam Landing	14
3-2.	Convergence	15
3-3.	White Balance	18
3-4.	Focus Adjustment	18
4.	**CIRCUIT ADJUSTMENTS**	
4-1.	A Board Adjustment	19
4-2.	X Board Adjustment	23
4-3.	D Board Adjustment	27
5.	**DIAGRAMS**	
5-1.	Circuit Boards Location	31
5-2.	Block Diagram	32
5-3.	Schematic Diagram	40
5-4.	Printed Wiring Boards	
	D Board	55
	A Board	57
	GA Board	58
	GB Board	58
	X Board	59
	U Board	60
	T_1 Board	62
	T_2 Board	62
	T_4 Board	62
	XA Board	62
	Z Board	62
	N Board	62
	P Board	63
	M Board	63
	C Board	64
5-5.	Semiconductors	65
6.	**EXPLODED VIEWS**	
6-1.	Back Cover	66
6-2.	CRT	67
6-3.	Chassis	68
7.	**ELECTRICAL PARTS LIST**	69
	RM-724 REMOTE COMMANDER	91
	APM-X3U SPEAKER SYSTEM	97

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
   Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60–100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

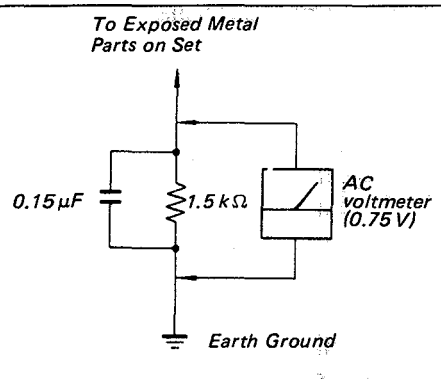


Fig. A. Using an AC voltmeter to check AC leakage.

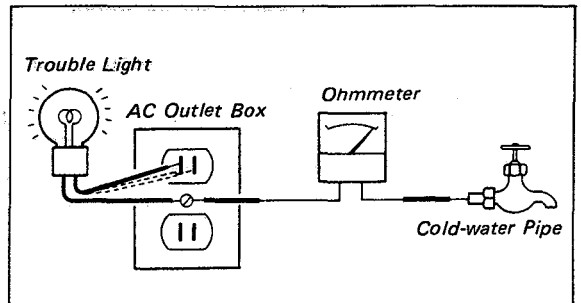


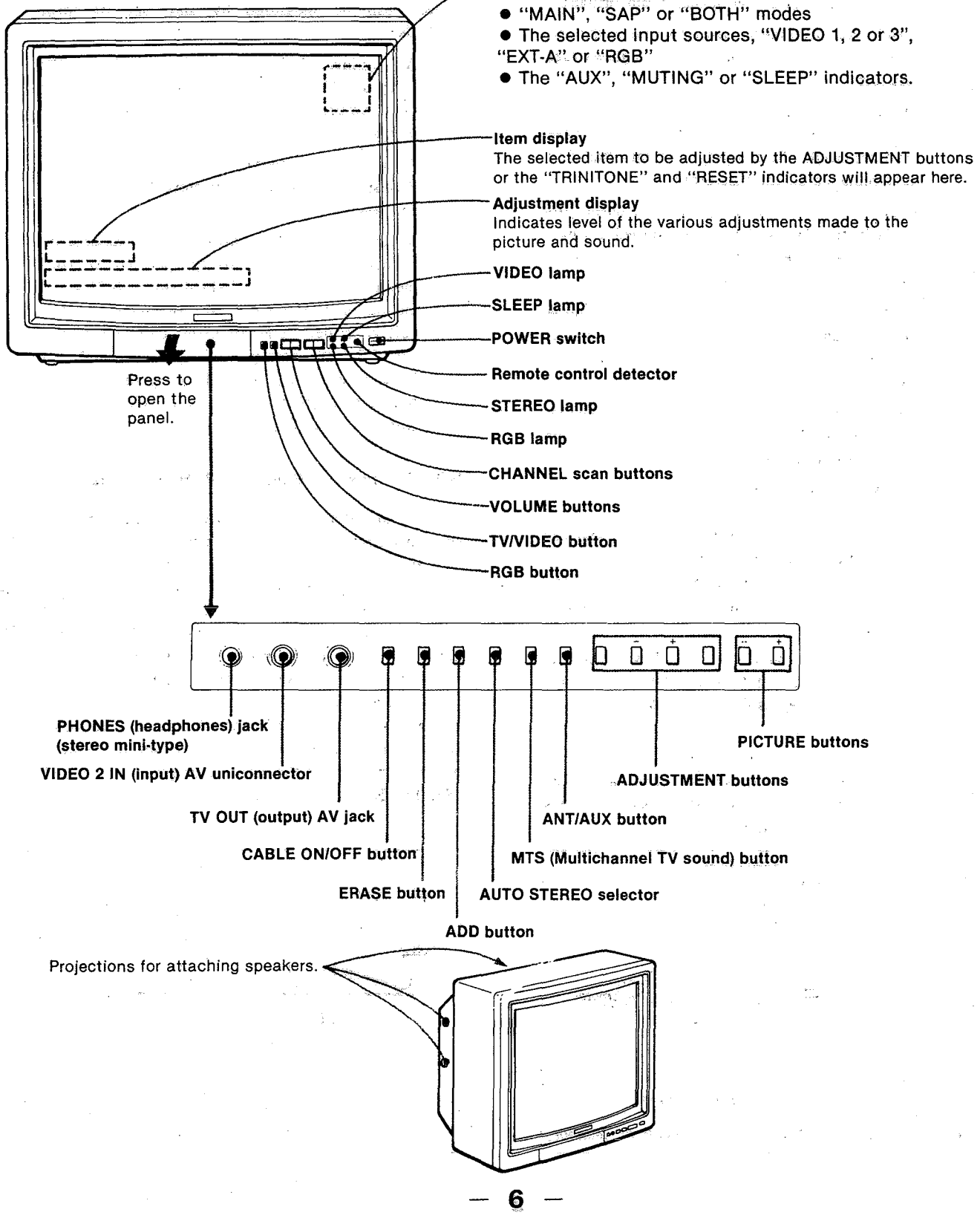
Fig. B. Checking for earth ground.

SECTION 1
OUTLINE

1-1. LOCATION OF CONTROLS

For details on the use of each control, refer to the pages indicated in brackets.
See page 10 for the location of jacks and controls on the back.

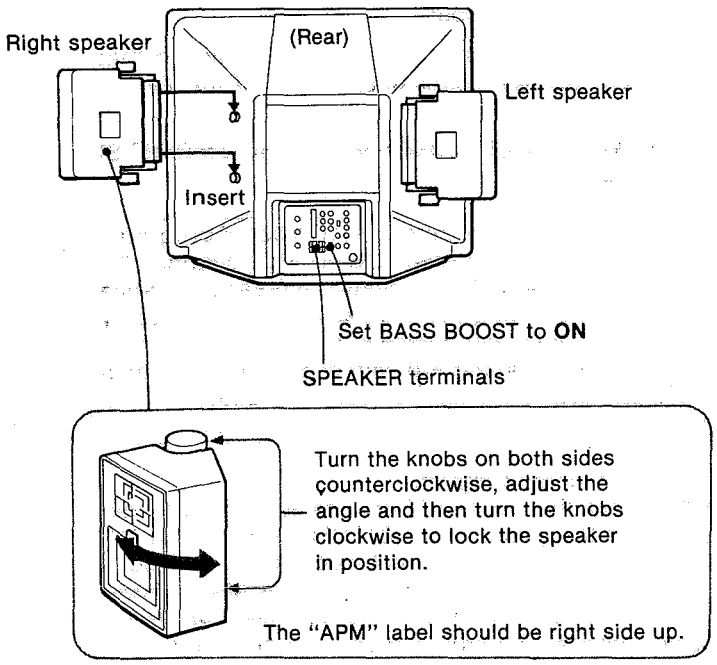
Front



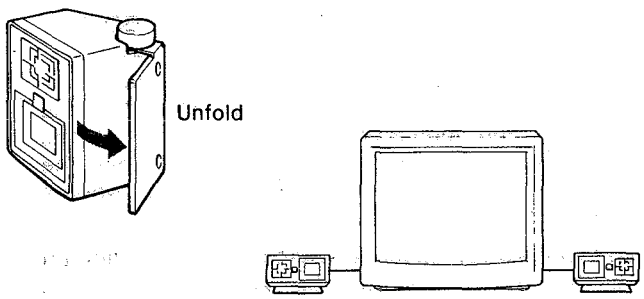
1-2. SET-UP
SPEAKERS

Placement

Attaching the speakers to the TV



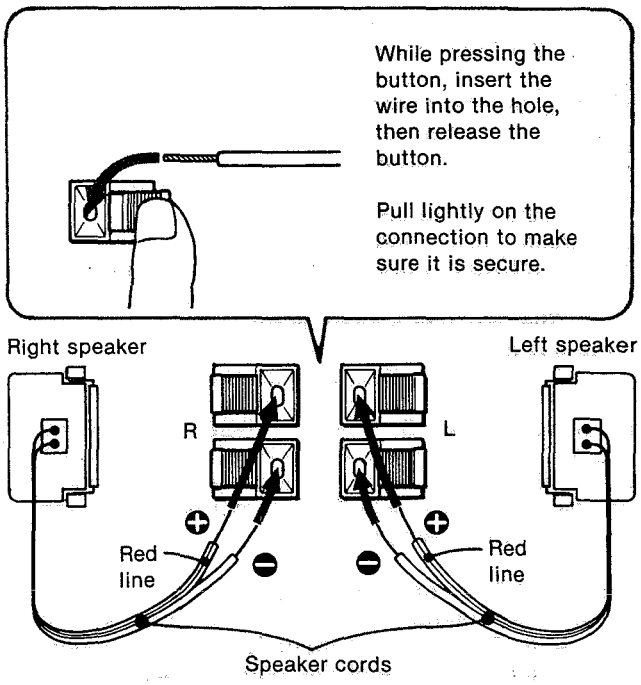
If desired, the speakers can be placed separately from the TV by unfolding the stand.



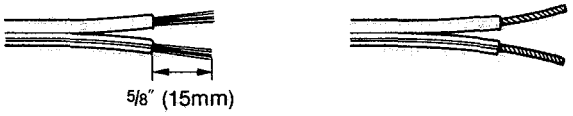
● Adjust the angle of the speakers, for best sound production.

Connection

The speaker cord marked with a red line should be connected to the ⊕ (red) terminal and the cord unmarked to the ⊖ (black) terminal for correct in-phase operation.



If desired, larger 8-ohm speakers can be used as long as they are rated at 8-ohm impedance.
Expose and twist the wire ends of the cords of your speakers as illustrated below, and make the correct ⊕ ⊖ connections. For large speakers, set BASS BOOST switch on the TV to "OFF" to prevent excessive bass.



Strip about 5/8" (15mm) of the wire insulation from the ends...

and then twist the wire ends.

Caution

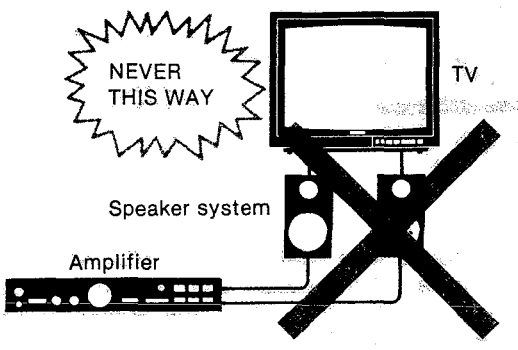
● Be sure to use speakers that are rated at 8-ohm impedance with normal power holding capacity of more than 7W for the KV-20XBR and of more than 10W for the KV-25XBR.

● Make sure that none of the wire strands stick out, making contact with the neighboring speaker terminals.

● If you have connected a pair of speakers other than the supplied speakers, make sure to place the TV set at a distance away from the speakers so that it will not be affected by the speaker magnets. If a temporary proximity to magnets should cause portions of the picture to have poor color, turn the POWER off, and after about 10 minutes, turn it on again.

Speakers with low magnetic flux leakage such as the SS-X1A, SS-X2A, and SS-X10A speaker systems (optional) may be placed near the set.

● Never connect an amplifier and this TV simultaneously to the speakers as this may damage the TV.



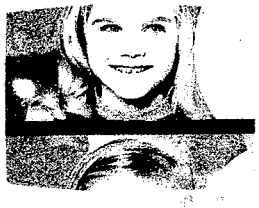
Preparation
Make sure the following are properly set.
● On-screen "VIDEO 1, 2 or 3", "EXT-A" or "RGB"* indicators and the RGB or VIDEO lamp should be off.
(Press TV/VIDEO button or RGB button as many times as necessary until they go out.)
● AUTO STEREO selector should be set to ON (depressed).
Depending on the channel to be viewed, check the following and change as necessary.
● CABLE ON/OFF button
For VHF and UHF channels, set to OFF ⊓.
For cable TV channels, set to ON ⊓.
● On-screen "AUX"* indicator
(Press ANT/AUX button to change as necessary.)
For VHF, UHF and regular cable TV channels:
The indicator should be off.
For pay cable TV channels:
The indicator should be displayed.

*The displays, "VIDEO" "EXT-A", "RGB" or "AUX" indicate that signals fed in through the VIDEO 1/3 INPUT jacks, VIDEO 2 IN AV uniconnector, the external audio jacks, the RGB MULTI INPUT connector or through the AUX terminals are being received.

1 Press POWER to turn on the TV.
The channel number will be displayed on the screen and the SLEEP lamp will light up for several seconds.

2 Select channels in one of the following two ways.
● Press the numeral(s) of the channel and then press ENTER.
Ex. To select channel 6, press 6 and then ENTER.
To select channel 125, press 1, 2, 5 and then ENTER.
If you pressed a wrong numeral, wait for a few seconds and it will disappear. Then try again.
● Press CH "+" for higher-numbered channels and "–" for lower-numbered channels. Preset channels will appear in sequence. (For presetting desired channels, see page 9.)
The channel display will remain on the screen for a few seconds. To keep the display on the screen, press DISPLAY.

3 Adjust the volume and picture to your preference, if necessary.
Press VOL "+" to increase volume, or "–" to decrease it.
Press PICTURE "+" to increase picture contrast, or "–" to decrease it.



If the picture rolls vertically, turn V HOLD control on the rear panel until the picture stabilizes.

V HOLD

To mute the sound immediately, press MUTING. The "MUTING" display will appear and remain on the screen. Press it again to restore the sound to its previously-set level or press VOLUME +.

To turn off the set, press POWER again.

To have the set turn off automatically after one hour, press SLEEP. The "SLEEP" display will appear on the screen a few seconds and the SLEEP lamp on the TV will remain lit for one hour.

To cancel the sleep timer, press SLEEP again so that the "SLEEP" display disappears, or turn off the TV.

LISTENING TO MULTICHANNEL TV SOUND(MTS) BROADCASTS

In the years to come, an increasing number of programs will be broadcast in stereo. Called Multichannel TV Sound or MTS, the new technology will greatly enhance TV viewing by bringing you programs with high fidelity stereo sound. MTS also provides for an extra channel called the Second Audio Program or SAP which broadcasters can use to transmit a second language for bilingual transmissions or some other sound track.

To receive a stereo program
Normally set the AUTO STEREO selector to ON (depressed). In this position, the STEREO lamp on the TV will light up whenever a stereo broadcast is received.
To listen to the stereo sound, select the MAIN mode with the MTS button so that the on-screen MAIN indicator appears. The stereo sound will be heard from the left and right speakers.

Every push on the MTS button changes the indicator below the channel number as follows:

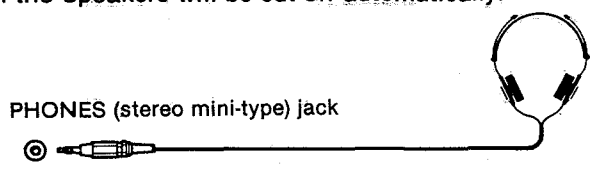
MAIN → SAP → BOTH

Select the appropriate mode according to various possible incoming broadcast signals. You can preset the mode while the indicators are yellow so that the selected sound will be heard automatically when the MTS program begins. The indicators turn green when a MTS program is actually being received.

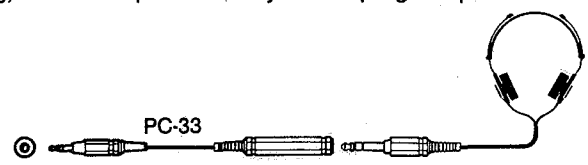
When there is a SAP (Second Audio Program) broadcast
Select the SAP mode so that the SAP indicator will be displayed and only the SAP sound will be heard from both speakers.
To listen to both MAIN and SAP broadcasts
Select the BOTH mode so that the BOTH indicator is displayed. The MAIN and SAP sounds will come out from the left and right speakers respectively.
The MAIN sound becomes monaural(mixed) even if it is a stereo broadcast, as the sound comes only from the left speaker.

Notes
● The selected mode will be retained even after the power has once been turned off.
● There may be cases of stereo broadcasts where excessive "noise" will be heard due to a weak incoming signal. By switching the AUTO STEREO selector to OFF and returning to a monaural mode, the noise should be eliminated.

Use of headphones
For private listening of sound, connect a pair of 8-ohm headphones (optional) to the PHONES jack. The sound from the speakers will be cut off automatically.



If the plug of your headphones is a stereo phone-type plug, use the optional Sony PC-33 plug adaptor.



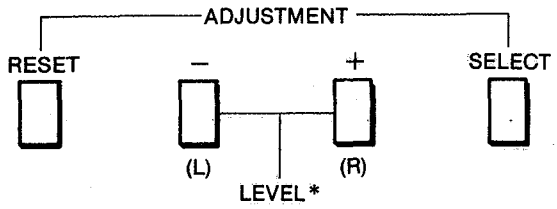
An earphone can also be connected to listen to the monaural (left channel) sound.

ADDITIONAL PICTURE AND SOUND ADJUSTMENTS

(Hue: Color: Brightness: Sharpness: Treble: Bass: Balance)

Additional picture and sound adjustments besides the adjustments made by the PICTURE and VOL (volume) buttons can be made as follows although your TV comes with its picture and sound preset at the factory for optimum performance.
The adjustments made can be cleared and the factory preset levels will be restored at once when the **RESET button** is pressed. (A "RESET" indicator will appear for a few seconds.)

Controls are inside the front panel.



*"LEVEL" is printed above the buttons on the KV-20XBR.

1 Press SELECT button consecutively until the on-screen display of the item you desire to adjust appears.
The display will change as follows:

HUE → COLOR → BRIGHT → SHARP → TREBLE → BASS → BALANCE → back to HUE

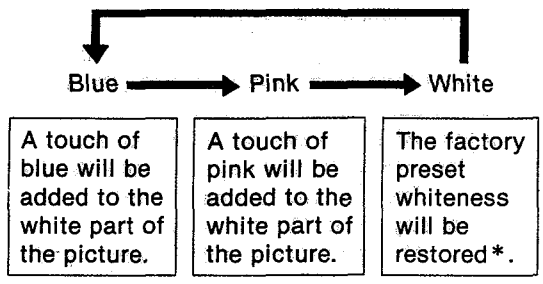
The display will disappear after a few seconds but will appear again when the next step is taken.

2 Press LEVEL +(R)/–(L) button to adjust the selected item.

	Selected item	–/(L) Left button	+/(R) button
PICTURE ADJUSTMENT	HUE	Skin tones become purplish	Skin tones become greenish
	COLOR	For less color intensity	For more color intensity
	BRIGHT	For less brightness	For more brightness
	SHARP	For less sharpness	For more sharpness
SOUND ADJUSTMENT	TREBLE	To decrease treble response	To increase treble response
	BASS	To decrease bass response	To increase bass response
	BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

On-screen color-bar displays
When any of the above adjustments are made, a colored segmented bar appears on the screen to indicate the appropriate setting level.
- The HUE setting is indicated by the ratio of the red (left) and green (right) segments.
- The COLOR level is indicated by the number of red segments.
- The BRIGHT, SHARP, TREBLE and BASS levels are indicated by the number of green segments.
- The stereo BALANCE is indicated by the ratio of the green (left) and red (right) segments.
- While the VOL or PICTURE button is pressed, the number of green segments show the sound or picture level.

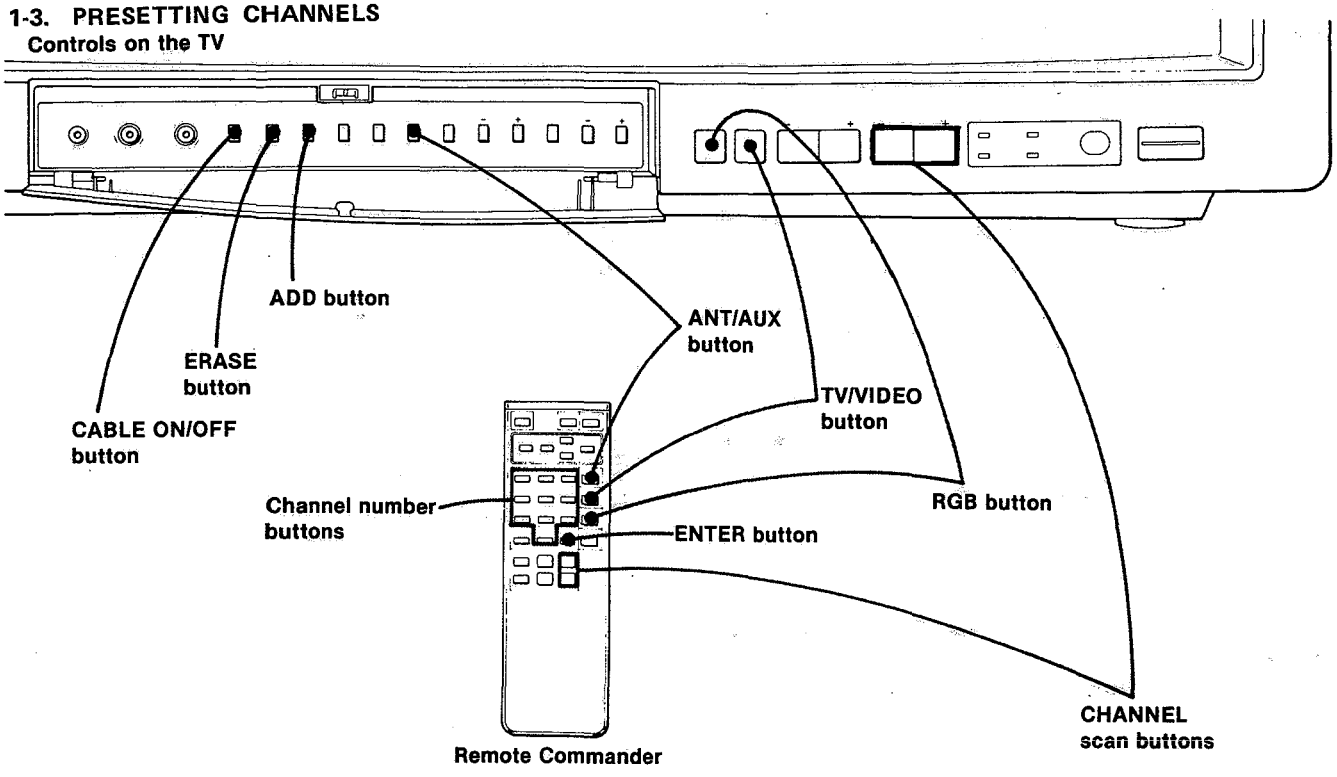
TRINITONE adjustment
Usually color picture tubes are manufactured with a fixed color temperature (tint) that determines the "warmness (reddish)" or "coolness (bluish)" of the picture it produces. With Sony's Trinitone feature, you can adjust the tint of the picture to your own color preference. The adjustment is made using the color white as reference. When you press the TRINITONE button, a "WHITE" indicator will appear on the screen. Each consecutive press of the TRINITONE button will change the color of the indicator as follows:



*The TRINITONE adjustment will return to its factory-preset level at once when the RESET button is pressed.

1-3. PRESETTING CHANNELS

Controls on the TV



Receivable channels of your set are:
VHF: 2–13
UHF: 14–69
CATV: 1–125
By adding and erasing channels, you can preset your TV so that only the desired channels appear in sequence when the CHANNEL +/– are pressed.

PREPARATION

1 **Turn on TV.**
2 **Make sure the following are properly set.**
On-screen "VIDEO 1, 2 or 3", "EXT-A" or "RGB" indicators and the RGB or VIDEO lamp should be off. (Press TV/VIDEO button or RGB button as necessary until they go out.)
3 **According to the channel to be added or erased, check the following and make the necessary changes if any.**
- CABLE ON/OFF button
  For VHF and UHF channels, set to OFF ⊓
  For cable TV channels, set to ON ⊓‾
- On-screen "AUX" indicator
  (Press ANT/AUX button as necessary.)
  For VHF, UHF and regular cable TV channels:
  The indicator should be off.
  For pay cable TV channels:
  The indicator should be displayed.

ADDING CHANNELS

1 **Select the channel to be added by pressing the channel number buttons and then ENTER.**
2 **Press ADD.**
A "+" indication will appear on the left of the channel display on the screen, indicating that the channel will appear in the proper numerical sequence when you press CHANNEL +/–.
Repeat steps **1** and **2** for other channels to be added.

ERASING CHANNELS

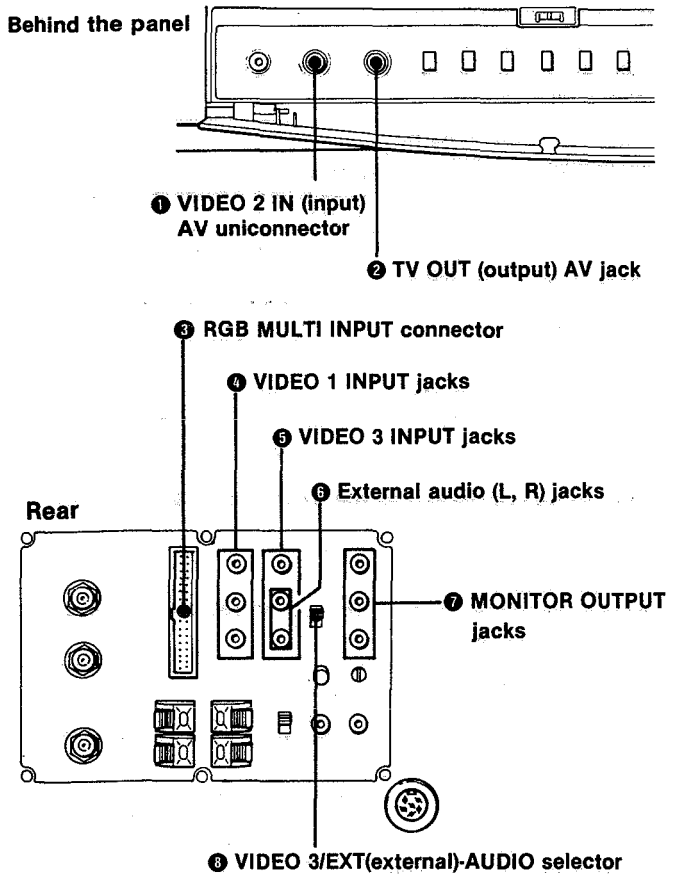
1 **Select the channel to be erased.**
2 **Press ERASE.**
A "–" indication will appear on the left of the channel display on the screen, indicating that the channel has been erased. When CHANNEL +/– are pressed, you will see that the channel is skipped over in the numerical sequence.
Repeat steps **1** and **2** for other channels to be erased.
To add erased channels again, follow the steps in "ADDING CHANNELS".

Note
You cannot erase a VHF or UHF channel from the memory and retain a cable TV channel which has the same number, or vice versa. If either a VHF/UHF channel or a cable TV channel with the same number is to be kept in the memory, do not erase the number.

1-4. APPLICATIONS WITH OTHER OPTIONAL EQUIPMENT

This unit is equipped with various input/output jacks and terminals for your desired equipment to be connected.
For details on the various optional connecting cables to be used, see "OPTIONAL AUDIO/VIDEO CONNECTING CABLES" on page 11.

Front



❶ VIDEO 2 IN (input) AV uniconnector (AV jack)
Connect to the video and audio output jacks of a video cassette recorder or microcomputer. Video and audio signals are transmitted simultaneously.

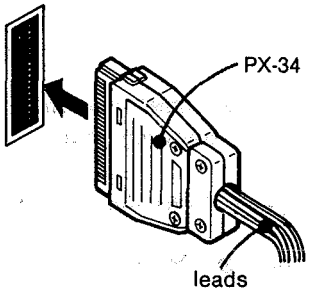
❷ TV OUT (output) jack (AV jack)
Connect to the video and audio input jacks of a video cassette recorder to record the output of the TV's built-in tuner. The TV tuner output will always be supplied even while other input signals are being viewed on the screen.

To record a TV program while viewing another video source

1 Select the TV channel you desire to record.
2 Start recording on the VCR.
3 Press either TV/VIDEO button or RGB button to select the desired source to be displayed.

Note
- The TV channel (and therefore the output of this jack) will change if you press the channel number or CHANNEL scan buttons even while the on-screen "RGB" indicator or RGB lamp is lit.
- The TV channel cannot be changed when the on-screen "VIDEO" indicator or VIDEO lamp is lit.

❸ RGB MULTI INPUT connector (34-pin jack)
This connector allows direct RGB hook-up to a microcomputer having RGB output.
When connecting the microcomputer, use a connecting cable with a 34-pin plug that will match the RGB output of the equipment to the pin assignment of this connector designated on page 19.



To connect a cable with loose signal leads instead of a plug, use an optional PX-34 RGB multi connector. For details on the arrangement and the connection of the leads, read the instruction manual of the PX-34.

❹ VIDEO 1 INPUT jacks
❺ VIDEO 3 INPUT jacks
Connect to the video and audio output jacks of a VCR*, video disc player, etc.

VIDEO jack (phono, yellow)	→	to video output jack
AUDIO L jack (phono, white)	→	to audio L (left channel) output jack
AUDIO R jack (phono, red)	→	to audio R (right channel) output jack

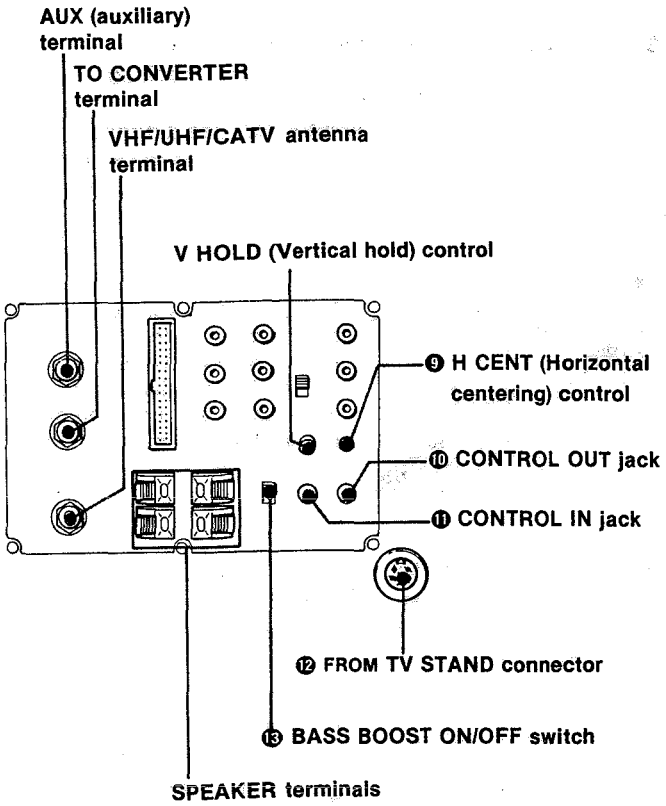
*You will achieve better picture and sound quality than by connecting the VCR only to the antenna terminal.

❻ External audio (L/R) jacks
An external audio source can be connected to these jacks to be combined with the picture of the selected TV program. Connect to the audio/line output of the audio source.

To view FM simulcasted programs, see page 16.

❼ MONITOR OUTPUT jacks (phono type)
Connect to the video and audio input jacks of a video cassette recorder or color monitor. Either the TV or VCR signal selected by the TV/VIDEO button is supplied.
To record only the sound, connect the audio input jacks of a tape recorder to the AUDIO L and R jacks with a connecting cable such as the optional RK-74A.
Note
The RGB signals are not supplied (and therefore will not be recorded on the connected VCR) from these jacks even when the RGB signals are displayed on the screen.

❽ VIDEO 3/EXT(external)-AUDIO selector
If you have connected a VCR, video disc player, etc., to the VIDEO 3 INPUT jacks, set to "VIDEO 3".
If you desire to mix the sound of the external audio source connected to the ❻ External audio jacks with the picture of the TV program, set to "EXT-AUDIO"



❾ H CENT (horizontal centering) control
Usually keep this control at the center detent position. If the display of the equipment connected to the ❸ RGB MULTI INPUT connector is shifted off center to the left side or right side of the screen, turn this control until the display is centered.

❿ ⓫ CONTROL IN/OUT jacks
These jacks are for connecting a future audio or video product also equipped with similar CONTROL IN or OUT jacks for the expansion of your audio-video system.

⓬ FROM TV STAND connector (6-pin DIN)
Connect the optional SU-171 TV stand which will enable you to turn on and off the power, adjust the volume, and select the channel of this TV with foot pedals.

⓭ BASS BOOST ON/OFF switch
When the supplied side-mounting speakers are used, set this switch to ON to enhance the bass sound.
When a larger speaker system is used, set this switch to OFF to prevent excessive bass.

1-5. CONNECTIONS
OPTIONAL AUDIO/VIDEO CONNECTING CABLES

The optional connecting cables to be used for connecting other equipment depend upon what type of audio and video jacks the equipment you desire to connect has. The following charts will help you choose which cable you should use.

Cables to be connected to the VIDEO 1 and 3 INPUT jacks

The type of audio and video jacks of the equipment to be connected.		Connecting cable to be used
Video (phono-type) ◎	Audio (L, R) (phono-type) ◎ ◎	VMC-2P3
Video (phono-type) ◎	Audio (mini-type) ◎	VMC-1MP3 (1 m), -2MP3 (2m)
Video (phono-type) ◎	Audio (phono-type) ◎	VMC-609MS

Cables to be connected to the VIDEO 2 IN and TV OUT (AV type) jacks

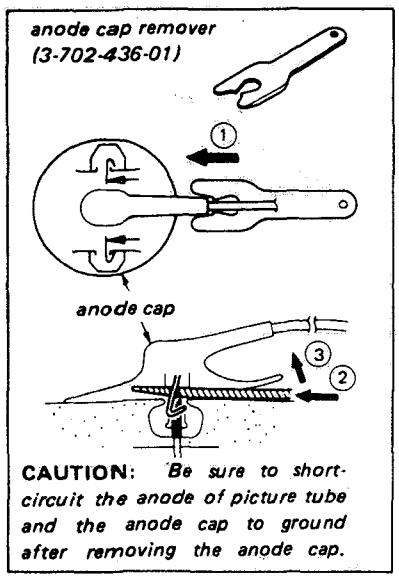
The type of audio and video jacks of the equipment to be connected.		Connecting cable to be used
Video (phono-type) ◎	Audio (L, R) (phono-type) ◎ ◎	VMC-610S
Video (phono-type) ◎	Audio (phono-type) ◎	VMC-612MS * *The PC-21 is supplied to the cable for a mini-type audio input.

The following are few examples of the possible connections.

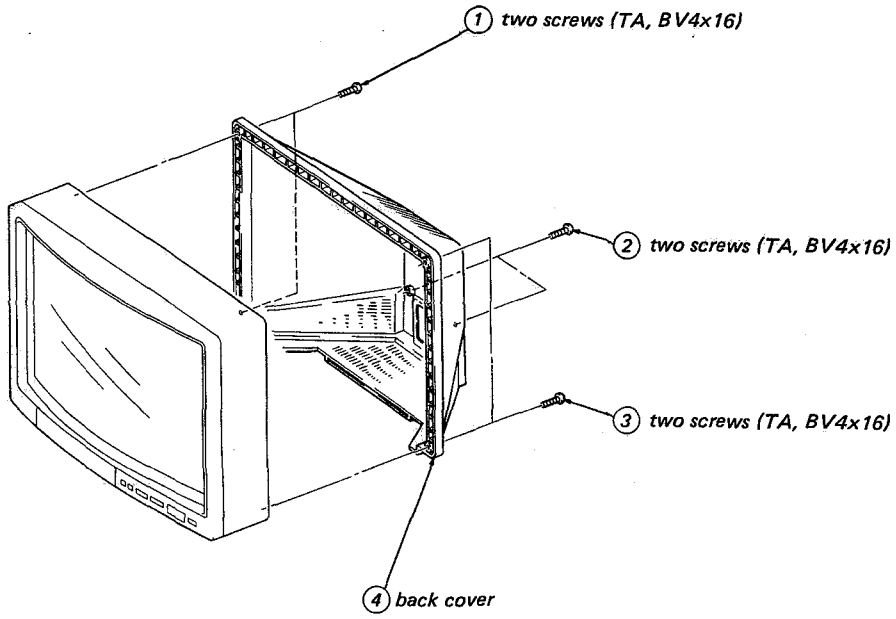
NOTES ON CONNECTION
- Before connecting, make sure that the power to each piece of equipment is turned off.
- The plugs should be fully inserted into the jacks. A loose connection may cause hum and noise.
- Match the color when connecting the plugs to the jacks.

SECTION 2
DISASSEMBLY

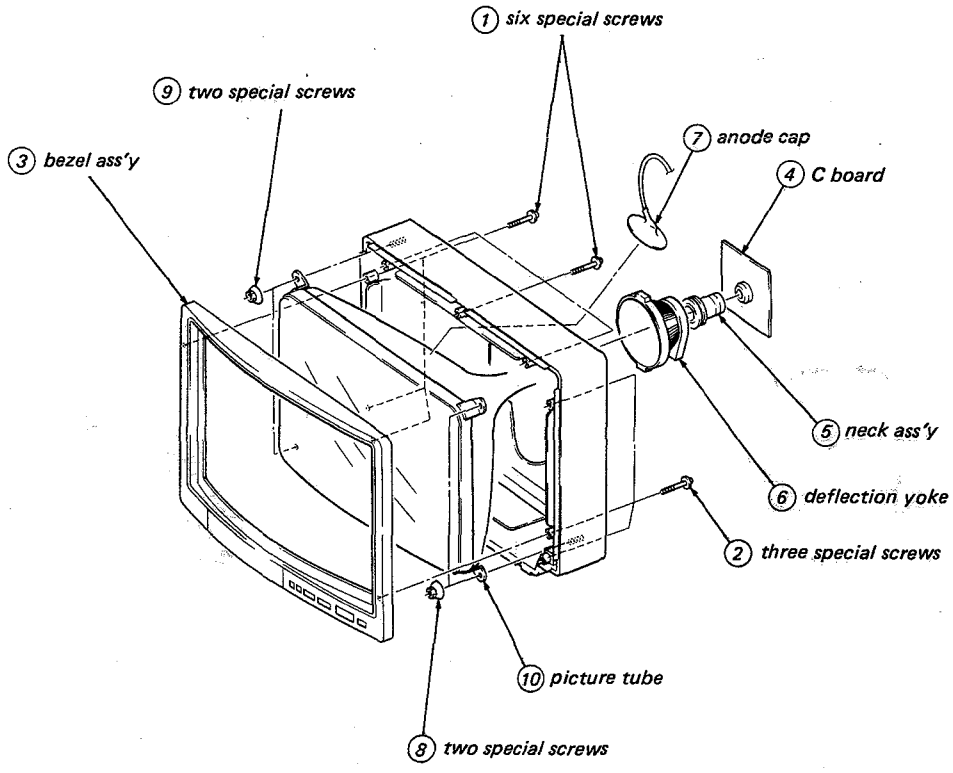
2-1. BACK COVER REMOVAL



CAUTION: *Be sure to short-circuit the anode of picture tube and the anode cap to ground after removing the anode cap.*



2-2. PICTURE TUBE REMOVAL



SECTION 3
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows unless otherwise noted:

PICTURE control . . . . .maximum

BRIGHT control . . . . . .maximum

Perform the adjustments in order as follows:

1. Beam Landing
2. Focus
3. Convergence
4. White Balance

Note: Test Equipment Required.
1. Color-bar/Pattern Generator
2. Degausser

3-1. BEAM LANDING

Preparation:

- Feed in the white pattern.
- Before starting, degauss the entire screen.

1. Loosen deflection yoke screw.
2. Adjust purity control as shown in Fig. 1.

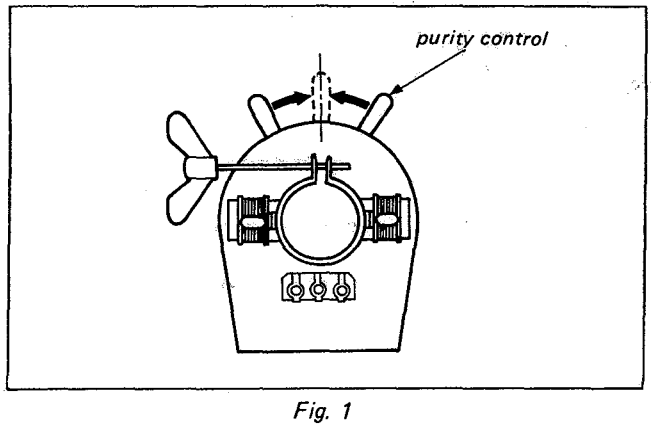


Fig. 1

3. Slide deflection yoke as far forward as it will go.
4. Position neck protector ass'y as shown in Fig. 2.

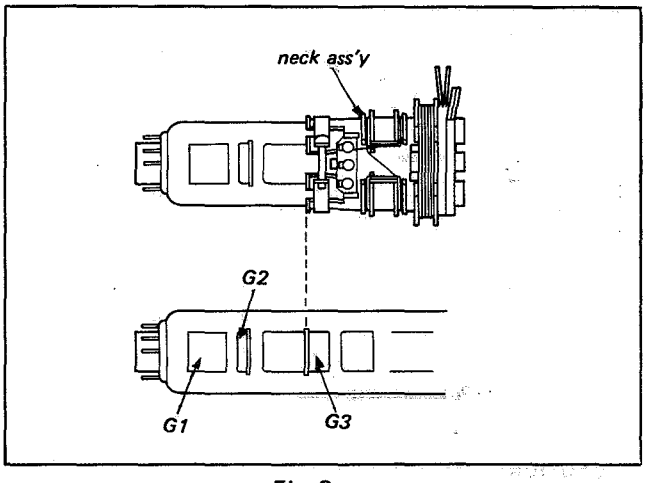


Fig. 2

5. Disconnect leads Ⓑ and Ⓖ on the C board.
6. Adjust purity control to center vertical red band as shown in Fig. 3.

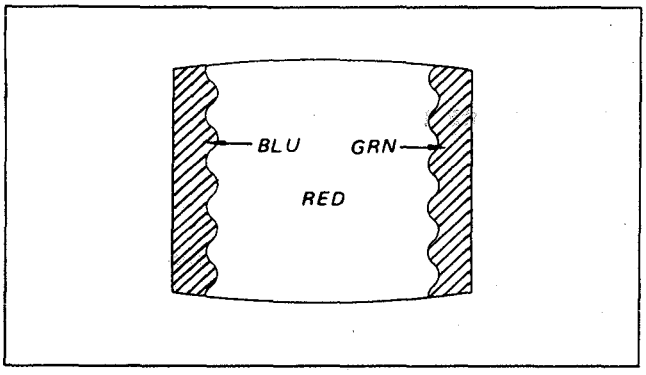
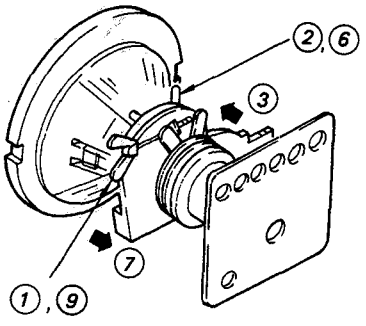


Fig. 3



Note: The circled numbers (① – ⑨) show above steps.

7. Slide deflection yoke back for a uniform red screen.
8. Check green and blue rasters for uniformity by performing the same way as steps 5, 6 and 7.
   To get a uniform green screen,
   connect lead Ⓖ on the C board and disconnect leads Ⓡ and Ⓑ
   To get a uniform blue screen,
   connect lead Ⓑ on the C board and disconnect leads Ⓡ and Ⓖ
   After these checks, connect the leads Ⓡ , Ⓖ and Ⓑ
9. Tighten the deflection yoke screw.
10. Check if mislanding appears at corners a–d as shown in Fig. 4. If mislanding is observed, correct it as shown in Fig. 4.

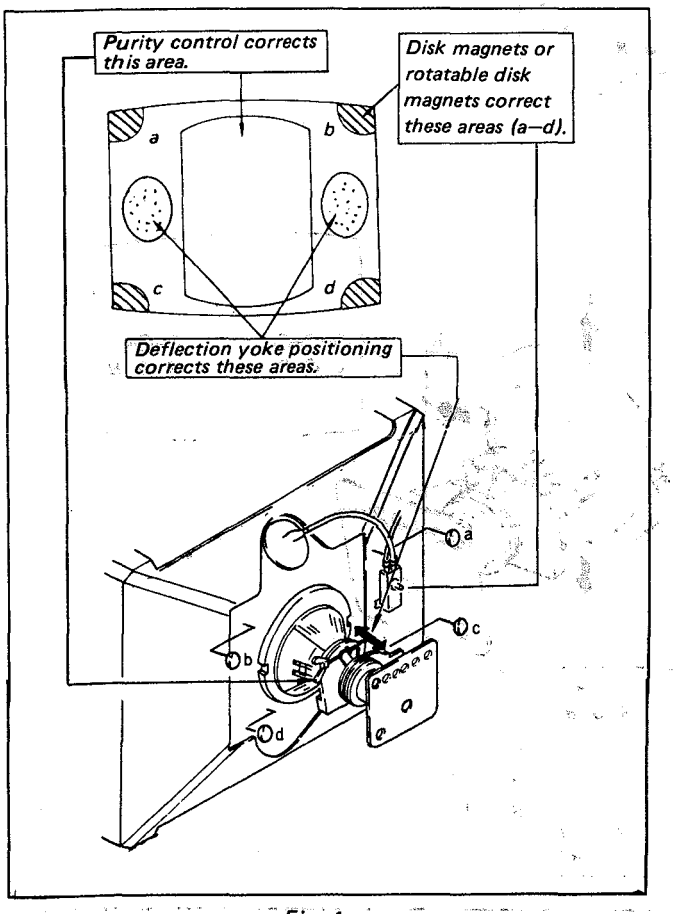


Fig. 4

11. Confirm that beam landing is correct when the receiver is faced in all directions.

3-2. CONVERGENCE

Preparation:

- Before starting, perform FOCUS, H. SIZE and V. SIZE adjustments.
- Set BRIGHT control to fully counterclockwise.
- Feed in the dot pattern.

(1) Horizontal and Vertical Static Convergence

If blue dot does not coincide with red and green dots, perform following steps.

Move BMC magnet (a) to correct insufficient H. static convergence.

Rotage BMC magnet (b) to correct insufficient V.static convergence.

In either case, repeat Beam Landing Adjustment.

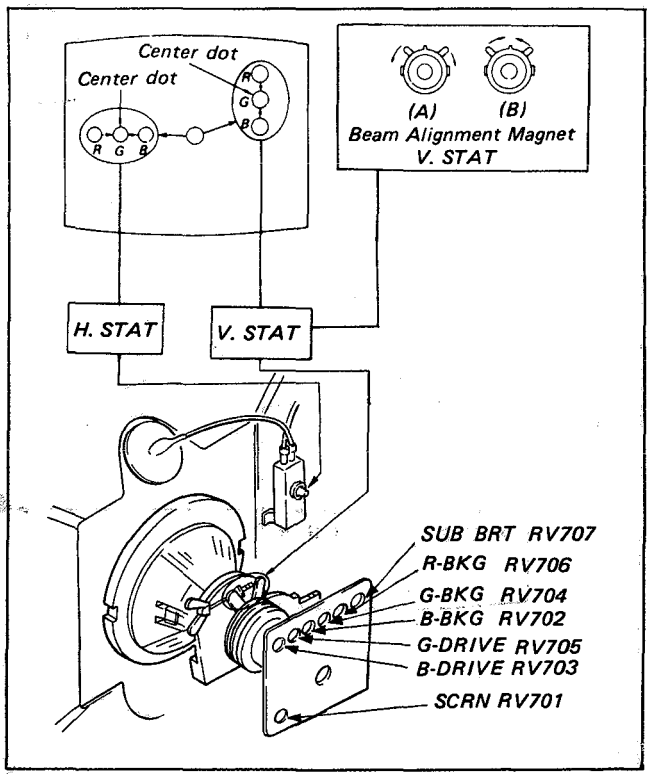


Fig. 5

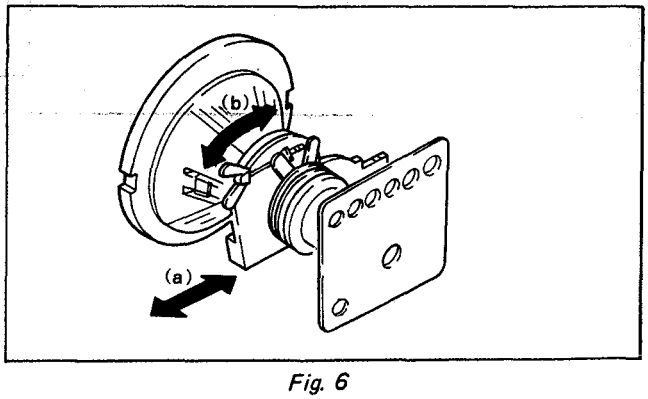


Fig. 6

(2) Dynamic Convergence Adjustment

Preparation:

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.

1. Loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown in Fig. 7.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

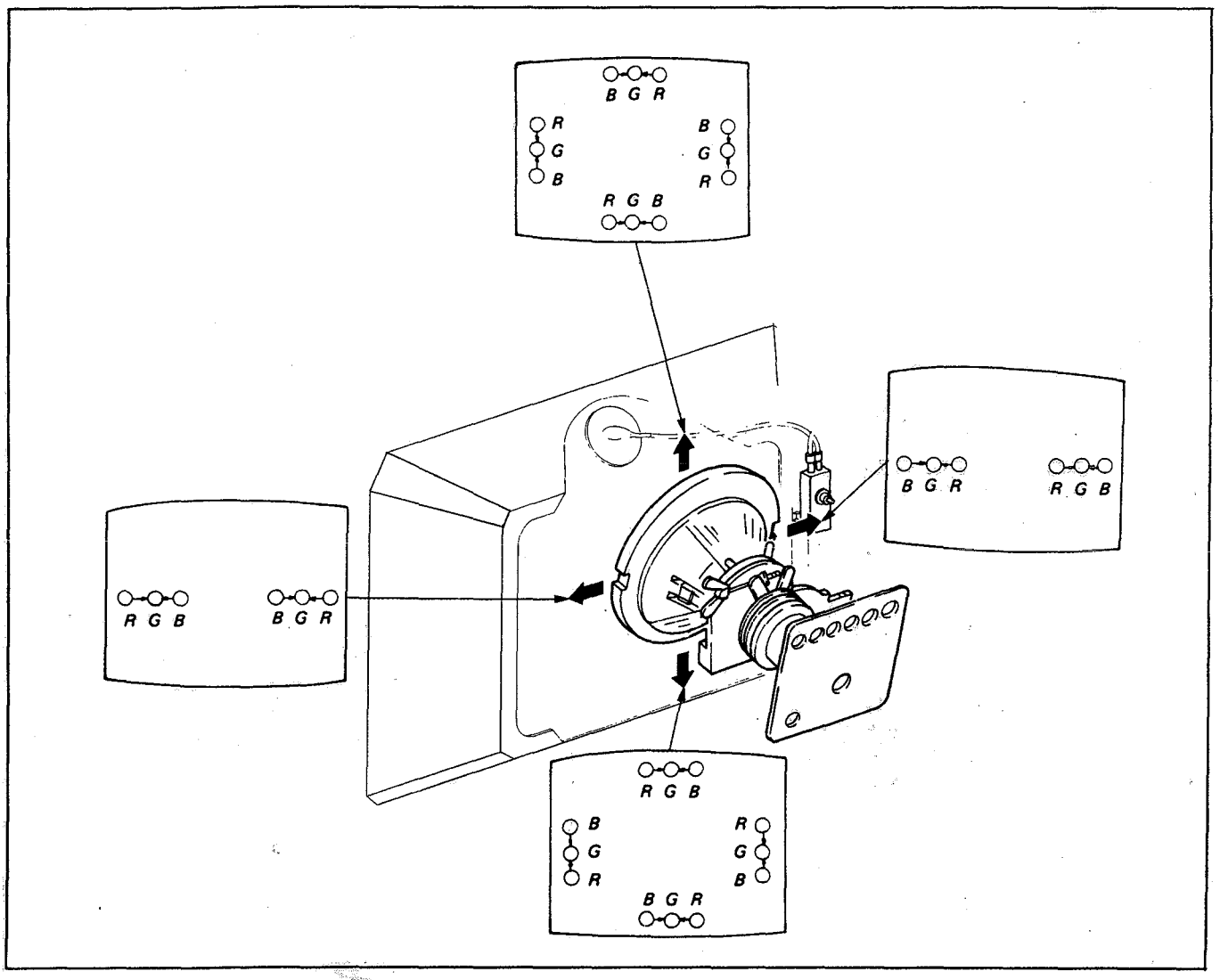


Fig. 7

6. Adjust the Y • CROSS (RV1506) and Y • BOW (RV1507), so that RED and BLUE shown in Fig.-8 will become a=b=c.

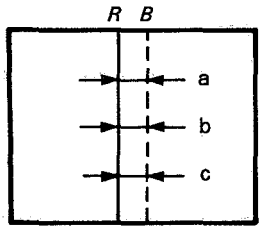


Fig. 8

7. Match the horizontal convergence at the center of the screen with H STAT VR.
8. Adjust the CORNER BOW (RV1508), so that RED and BLUE shown in Fig.-9 will become a=b=c and d=e=f.

   Note: At this point, if the relationship between a=c or d=f is not established, adjust the Y • CROSS (RV1506) again.

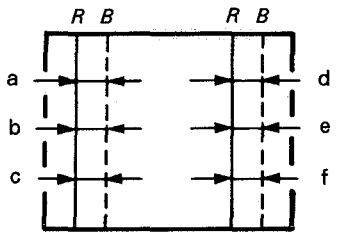


Fig. 9

9. Match the horizontal convergence at the center of the screen with the H STAT VR.
10. Adjust the H TILT (RV1505) so that the RED and BLUE shown in Fig.-10 will become a=b.

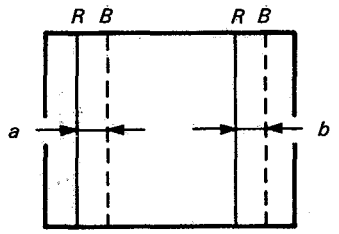


Fig. 10

11. Adjust the H AMP (RV1504) so that the RED and BLUE shown in Fig.-11 will become 2=2b.

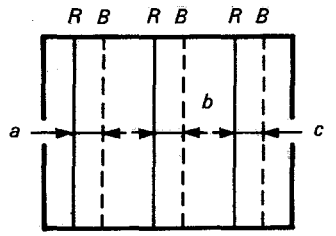


Fig. 11

12. Match the horizontal convergence at the center of the screen with the H STAT VR.
13. When the H AMP is adjusted repeat the procedures described in Steps 10 to 12.
14. If divergence of the convergence exists at the corner of the screen, the adjustments described in Steps after 8 should be repeated.

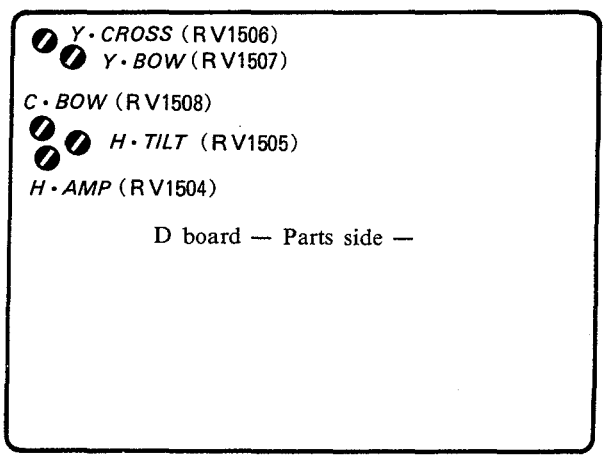


Fig. 12

(3) Corner Convergence

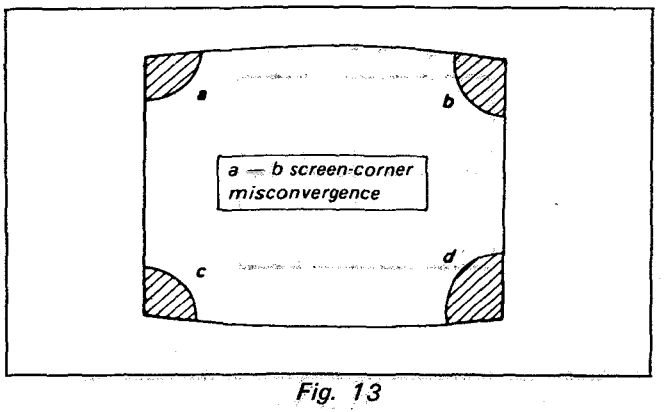


Fig. 13

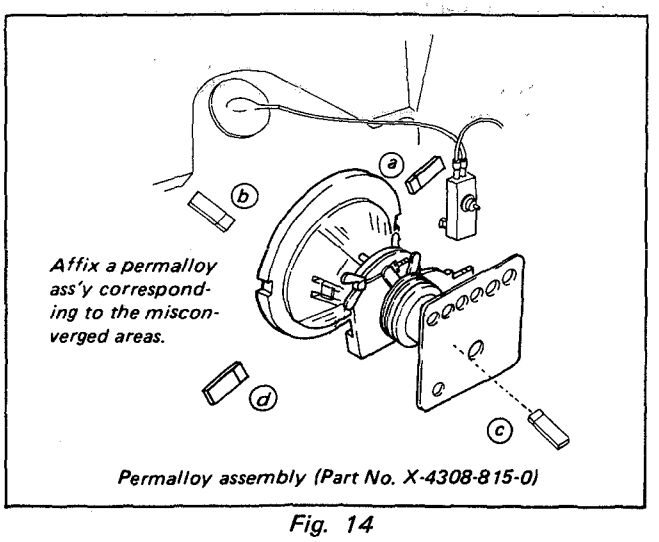


Fig. 14

3-3. WHITE BALANCE

Feed in the cross-hatch pattern.

1. Set the PICTURE and BRIGHT controls to minimum position
2. Turn B. DRIVE and G. DRIVE controls fully clockwise.
3. Set B. BKG, G. BKG and R. BKG controls to mechanical center.
4. Turn SCRN control slowly to obtain a faintly visible cross-hatch. Note the color that first becomes visible by turning SCRN control. Do not turn a BKG control for this color.
5. Adjust the other two BKG controls for best white balance (neutral gray) of the faint cross-hatch.
6. Set the PICTURE and BRIGHTNESS controls to maximum position
   Observe the screen and adjust the DRIVE controls for best white balance.
7. Repeat Steps 1 through 6 several times.

3-4. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for a best focus.

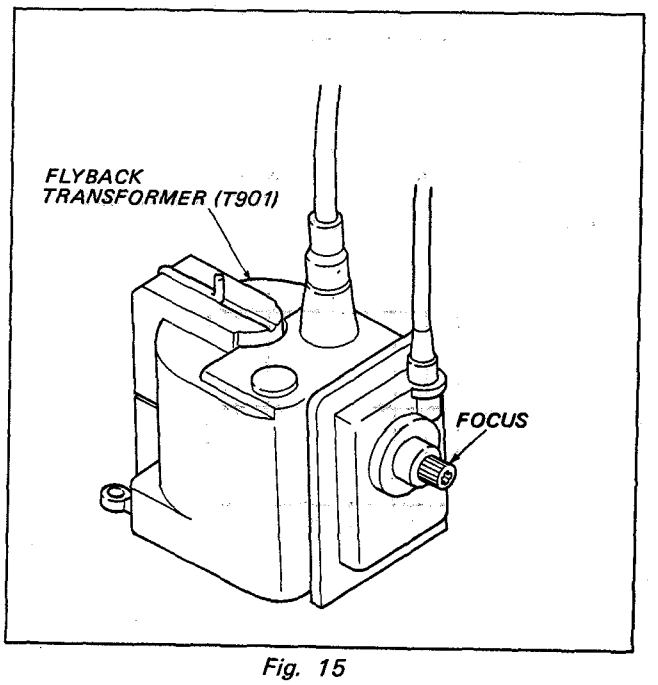


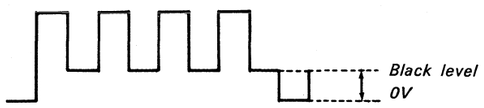
Fig. 15

SECTION 4
CIRCUIT ADJUSTMENTS

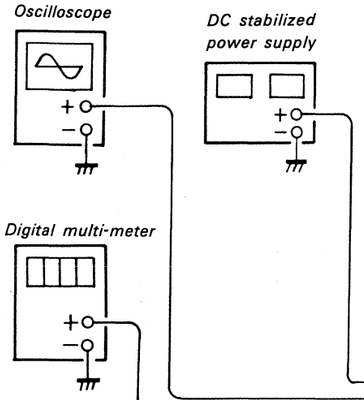
4-1. A BOARD ADJUSTMENT

BLACK LEVEL ADJUSTMENT

(1) Receive color bar signal.
(2) Set the analog level of the microcomputer to the standard.
(3) Add 6V DC to pin (6) (SUB BRT terminal) of A-16 connector.
(4) Adjust the black level volume (RV406) so as to the voltage of pin (12) of IC401 (black level terminal) becomes equal to the black level waveform of Pin (21) of IC401.



Waveform of pin (21) of IC401



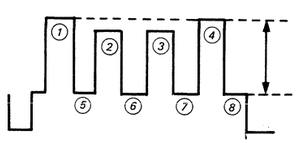
(Caution) The black level of pin (21) waveform of IC401 should be equal to the pedestal level.
In addition, the voltage of pin (12) of IC401 should not be higher than that of the black level.

BAR DISPLAY POSITION ADJUSTMENT

(1) Receiver the broadcasting signal.
(2) Press the picture button so that the received signal becomes maximum.
(3) At this point, adjust the undisplayed portions of the left and right sides of the bar signal so as to become equal with L102.

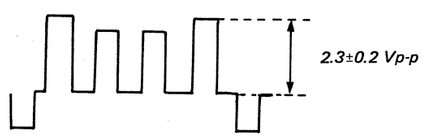
ACC ADJUSTMENT AND HUE ADJUSTMENT

(1) Receive color bar signal.
(2) HUE ..... 50% (resetting)
COLOR THICKNESS ..... 50% (resetting)
PICTURE ..... Maximum
(3) Observe pin (32) of IC301 with an oscilloscope, and adjust the output waveform so as to become that as shown in the diagram by turning the ACC volume (RV304) and Hue volume (RV303).

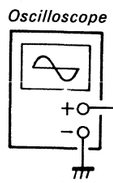


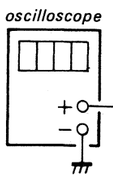
Make levels of (1) to (4) even.
(5) to (8) have a little residual tilt.)

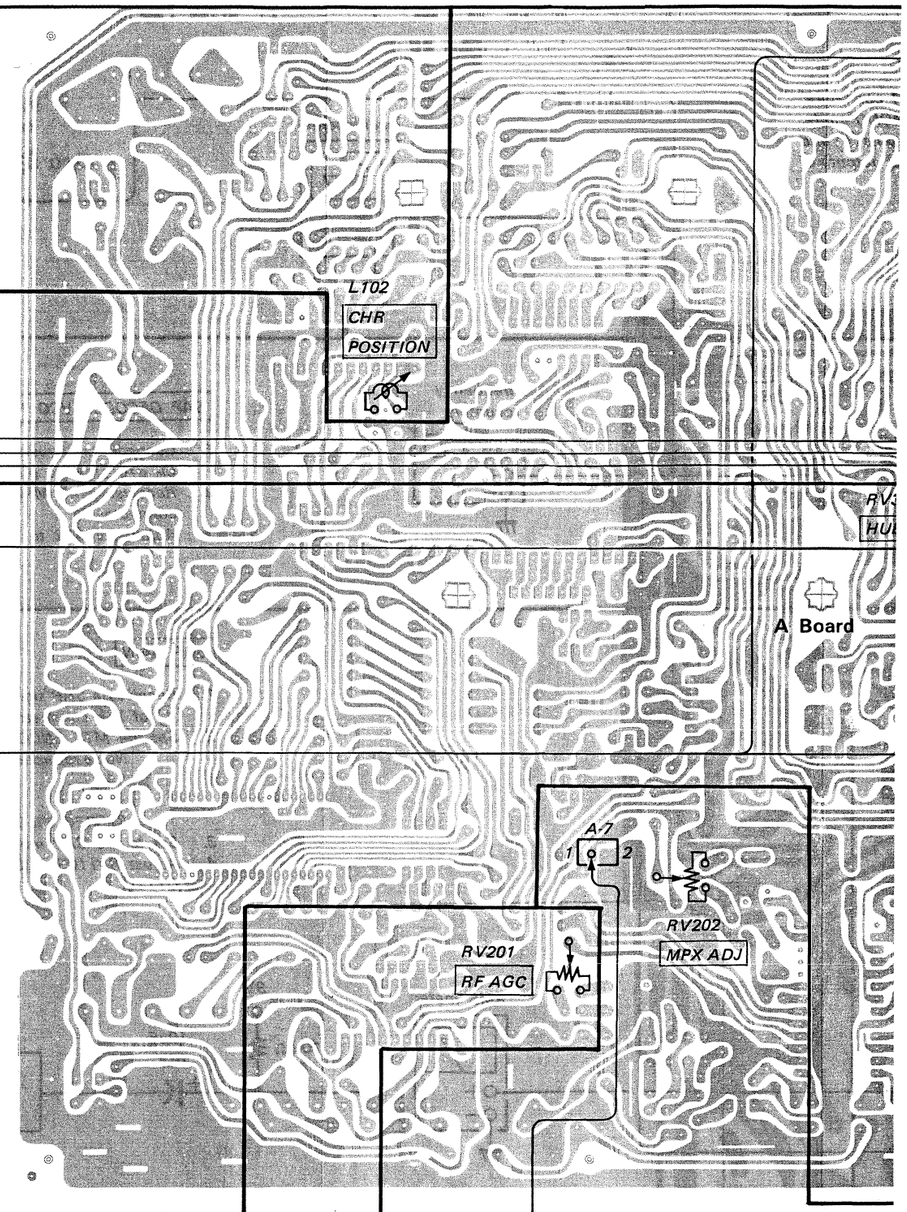
(4) Confirm that the voltage at the middle point of the ACC volume (RV304) should be less than 9V.
(5) Confirm that the blue output should be 2.3 ± 0.2V after adjusted.



(Caution) Measurement should be performed under the conditions that removing A-16 connector and not applying ABL.

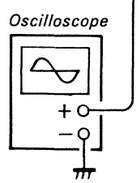






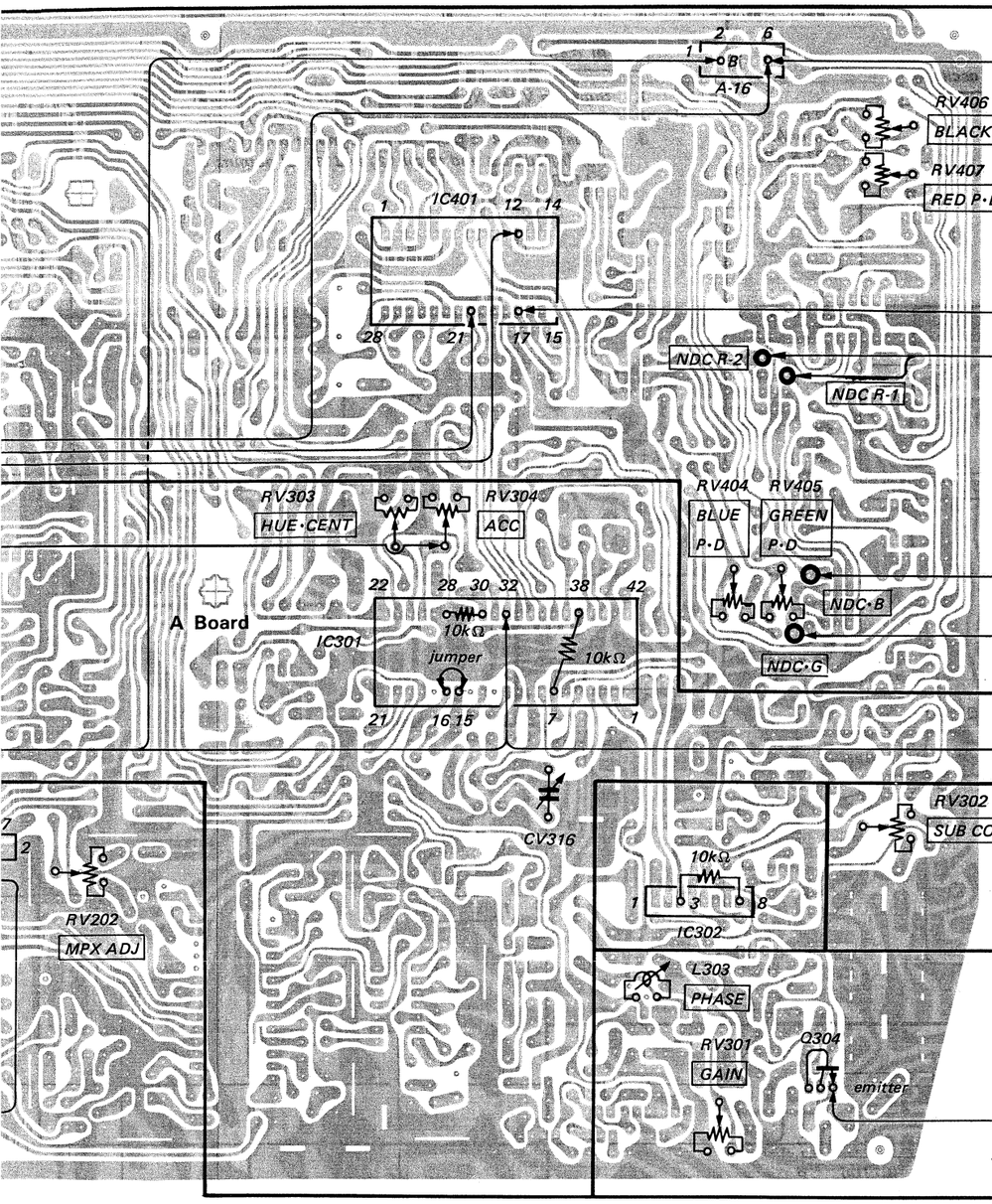
RF AND AGC ADJUSTMENT (ROUGH ADJUSTMENT)

(1) Adjust with RV201 (RF AGC) so as to disappear snow noise and cross-modulation.
(2) Confirm them at every channel.



MPX ADJUSTMENT

(1) Receive dot signal with channel 9.
(2) Observe pin (1) of A-7 connector with
(3) Adjust it with the MPX volume (RV

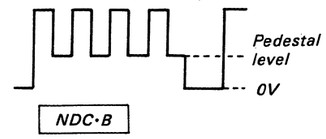


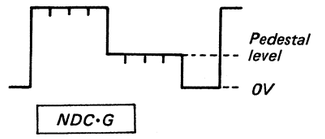
oscilloscope

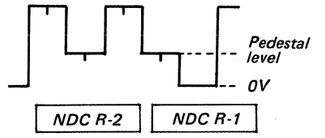
regulate-dc power supply

N. DYNAMIC COLOR ADJUSTMENT

(1) Receive color bar signal.
(2) N.D.C ..... Blue ON state
PICTURE VOLUME ..... Minimum
BRIGHTNESS VOLUME ..... 50% (resetting)
(3) Watch the potential at the points of NDC.B and NDC-G to the pedestal at the point of NDCR-2 with RV404 (BLUE P.D) and RV405 (GREEN P.D), and adjust so that the input level offset becomes disappear.
(4) Apply 6V DC to pin (6) of A-16 connector (SUB BRT), and adjust the pedestal levels at the points of NDC.R-1 and NDC R-2 so as to they become the same level with RV407 (RED P.D).
(5) Switch the NDC at green and red, and confirm that there have been no differences in adjustments.







oscilloscope

14.3 MHz • fo ADJUSTMENT

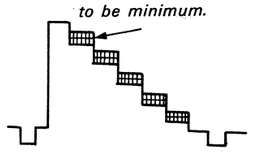
(1) Receive color bar signal.
(2) HUE VOLUME 50%
COLOR THICKNESS VOLUME ... 50% Resetting
PICTURE VOLUME 70%
(3) Connect pin (30) of IC301 to GND through via 10 kΩ resistor.
(4) Connect pin (38) of IC301 to 12V via 10 kΩ resistor.
(5) Short pins (15) and (16) of IC301.
(6) Observe pin (32) of IC301 with an oscilloscope, and confirm that the color signal is out of synchronization.
(7) Turn CV316 to make color synchronization.

Oscilloscope

COMB TYPE FILTER ADJUSTMENT

(1) Set at TV mode and receive color bar signal.
(2) Connect an oscilloscope to the Y signal output of the comb type filter (the emitter of Q304), and adjust RV301 (GAIN) and L303 (PAHSE) taking tracking, so as the chroma component of the waveform to becomes minimum.

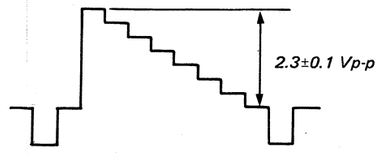
Make 3.58 MHz carrier component to be minimum.



Oscilloscope

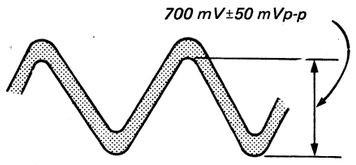
SUB-CONTRAST ADJUSTMENT

(1) Receive color bar signal.
(2) COLOR PICTURE VOLUME ..... Maximum
COLOR THICKNESS VOLUME ..... Minimum
(3) Adjust the waveform of pin (17) of IC401 to that as shown in the diagram with RV302 (SUB CONT)



PX ADJUSTMENT

Receive dot signal with channel 9.
Observe pin (1) of A-7 connector with an oscilloscope.
Adjust it with the MPX volume (RV202).



SEPARATION ADJUSTMENT

(1) Receive stereo signal.
(2) Adjust (MPX ADJ) with RV202 so that the separation becomes optimal.

4-2. X BOARD ADJUSTMENTS

SIGNAL SET UP

V MAIN (L+R) signal: 300 Hz, 247 mVrms (0.7 Vp-p)
V SUB (L−R) signal: 400 Hz, 100% modulation
Carrier: 31.468 kHz
1.4 Vp-p
V SAP signal: 400 Hz, 100% modulation
(±10 kHz deviation)
0.42 Vp-p
Carrier: 78.671 kHz
STEREO PILOT signal: 15.734 kHz
0.14 Vp-p

SEPARATION

1. Set to the SAP mode.
2. Input 300 Hz, 63.0 mVrms (−21.8 dBs) sine wave signal to dBX IN.
   Adjust RV1110 to 0.15 Vp-p ± 5 mV at IC1106 output pins ② and ③ [L] outputs, and to ⑨ and ⑩ [R] outputs, at this time.

(L+R) GAIN

1. Supply a V MAIN signal to pin ① of X-1 connector.
2. Sets the MAIN mode, and STEREO or MONO mode.
3. Adjust RV1104 to 0.6 Vp-p ± 20 mV at pins ⑨ and ⑩ [R] outputs and to pin ② and ③ [L] outputs of IC1106.

NOISE REDUCTION VARIABLE DE-EMPHASIS

1. Sets RV1109 (VD ADJ) and RV1110 (SEPARATION) to mechanical center.
2. Connect the 1 kΩ Resistor between the EMITTER and 9V LINE to turn OFF the Q1110.
3. Input 300 Hz, 46.9 mVrms (−24.3 dBs) sine wave signal to dBX IN.
   Read the output level (Va) of dBX OUT and make sure that the level (Va) is −35 dBs < Va < −23 dBs.
4. Input 8 kHz, 106.2 mVrms (−17.2 dBs) sine wave signal to dBX IN.
   Adjust RV1109 (VD ADJ) so that the output level (Vb) of dBX OUT will become Vb (dBs) = [Va (dBs) − 11.3 (dB)] at this time.
   0 dBs = 0.775 Vrms

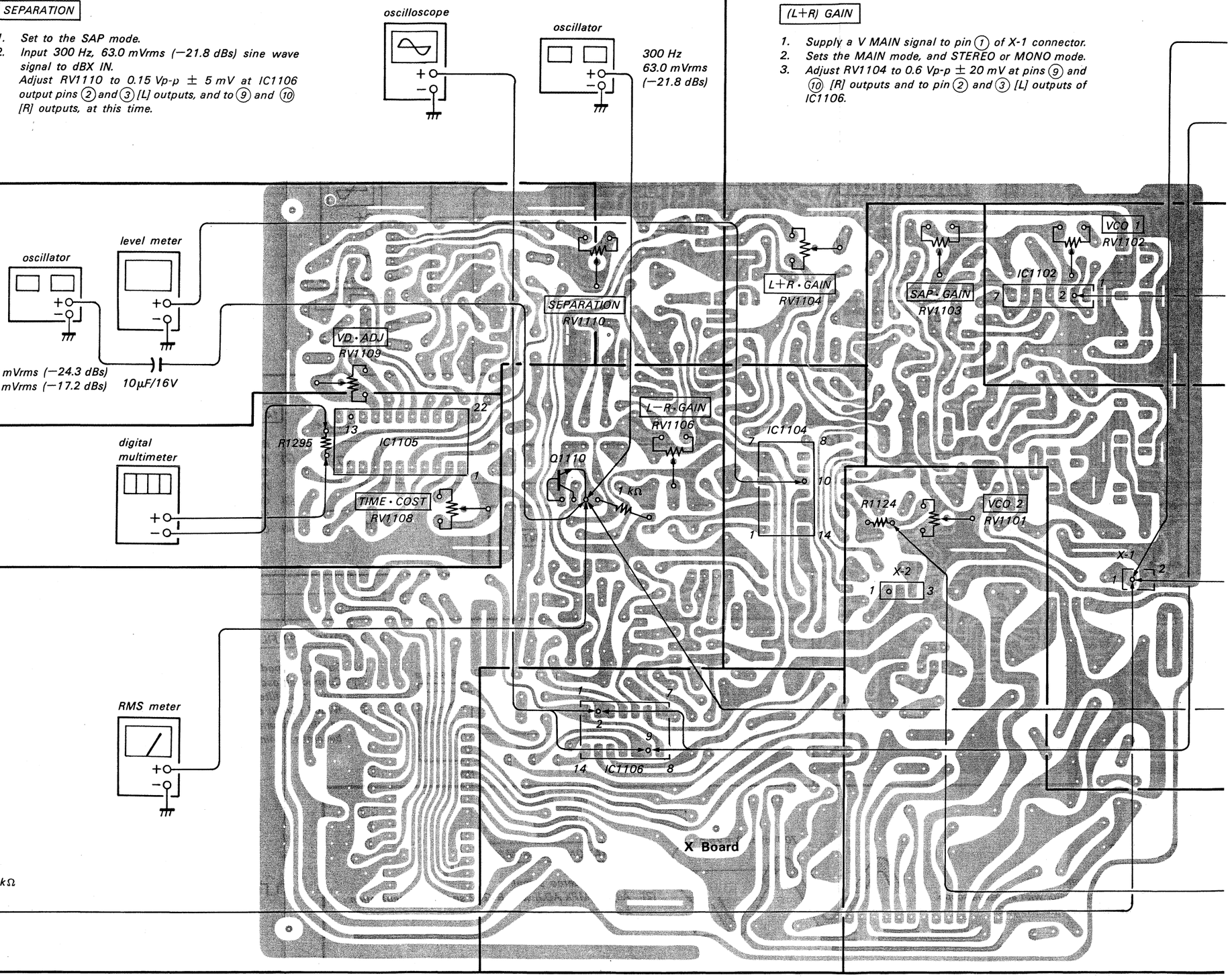
◦ 300 Hz, 46.9 mVrms (−24.3 dBs)
◦ 8 kHz, 106.2 mVrms (−17.2 dBs)

NOISE REDUCTION (TIME CONSTANT)

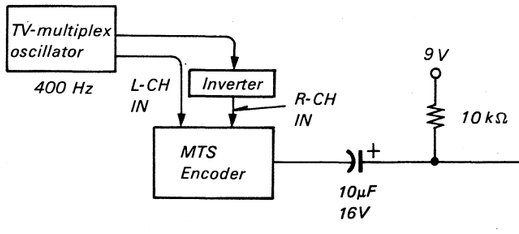
1. Adjust RV1108 to 15 ± 1 mVdc at IC1105 pin ⑬ as shown.

(L−R) GAIN

1. Receives a composite signal (SUB signal and STEREO PILOT signal) from a MTS ENCODER to pin ① of X-1 connector.
2. Set the MTS ENCODER switch as shown;
   Noise reduction . . . OFF
   SUB . . . . . ON
   STEREO PILOT . . . ON
   SAP . . . . . ON or OFF
3. Set the MAIN mode of the DECODER.
4. Adjust RV1106 to 332 ± 10 mVrms on emitter of Q1110.



Signal Setup



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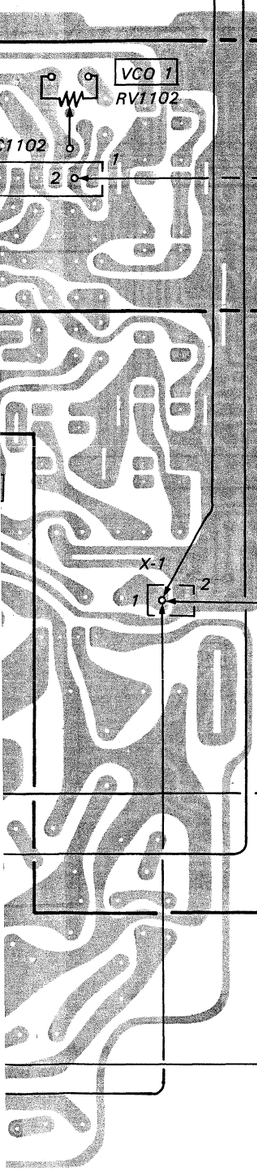
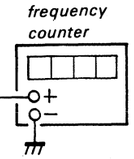
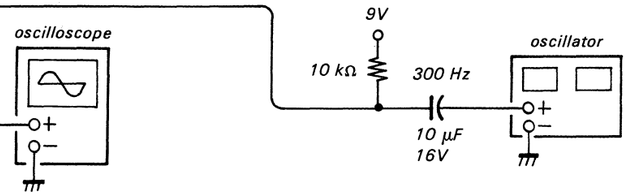
RM-724/APM-X3U

connector.
ONO mode.
pins (9) and
l outputs of





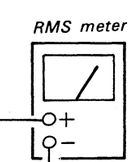


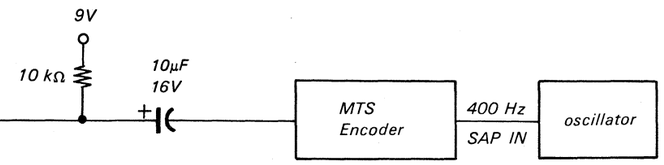
SAP DECODER VCO 1

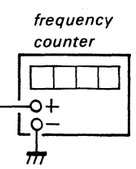
1. Connect the frequency counter (high input impedance, C_{in} «1000pF) to pin (2) of IC1102.
2. Receives a no MPX signal input at pin (1) of X-1 connector.
3. Adjust RV1102 to 78.67 kHz ± 300 Hz.

SAP GAIN

1. Receives a SAP signal from a MTS ENCODER to pin (1) of X-1 connector.
2. Set the MTS ENCODER switch as shown;
   Noise reduction . . . OFF
   SAP . . . . . ON
   SUB . . . . . ON or OFF
   STEREO PILOT . . . ON or OFF
3. Set to the SAP mode.
4. Adjust RV1103 to 332 ± 10 mVrms on emitter of Q1110.







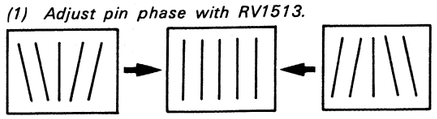
STEREO DECODER VCO 2

1. Connect the frequency counter (high input impedance, C_{in} «1000pF) to the point between R1124 and RV1101.
2. Receives a no MPX signal input at pin (1) of X-1 connector.
3. Set to the STEREO mode. (Open the pin (1) of X-1 connector.)
4. Adjust RV1101 to 62.936 kHz ± 300 Hz.

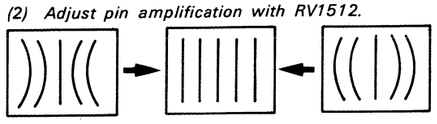
4-3. D BOARD ADJUSTMENT

OPERATION CONFIRMATION OF THE LEFT AND RIGHT PINS DISTORTIONS AND ADJUSTMENTS (ROUGH ADJUSTMENTS)

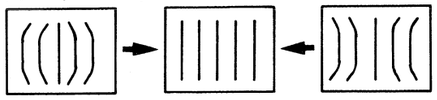
(1) Adjust pin phase with RV1513.



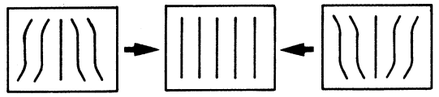
(2) Adjust pin amplification with RV1512.



(3) Adjust U/L pin with RV1509.



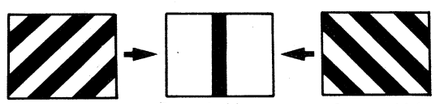
(4) Adjust PIN CORRECT with RV1510.



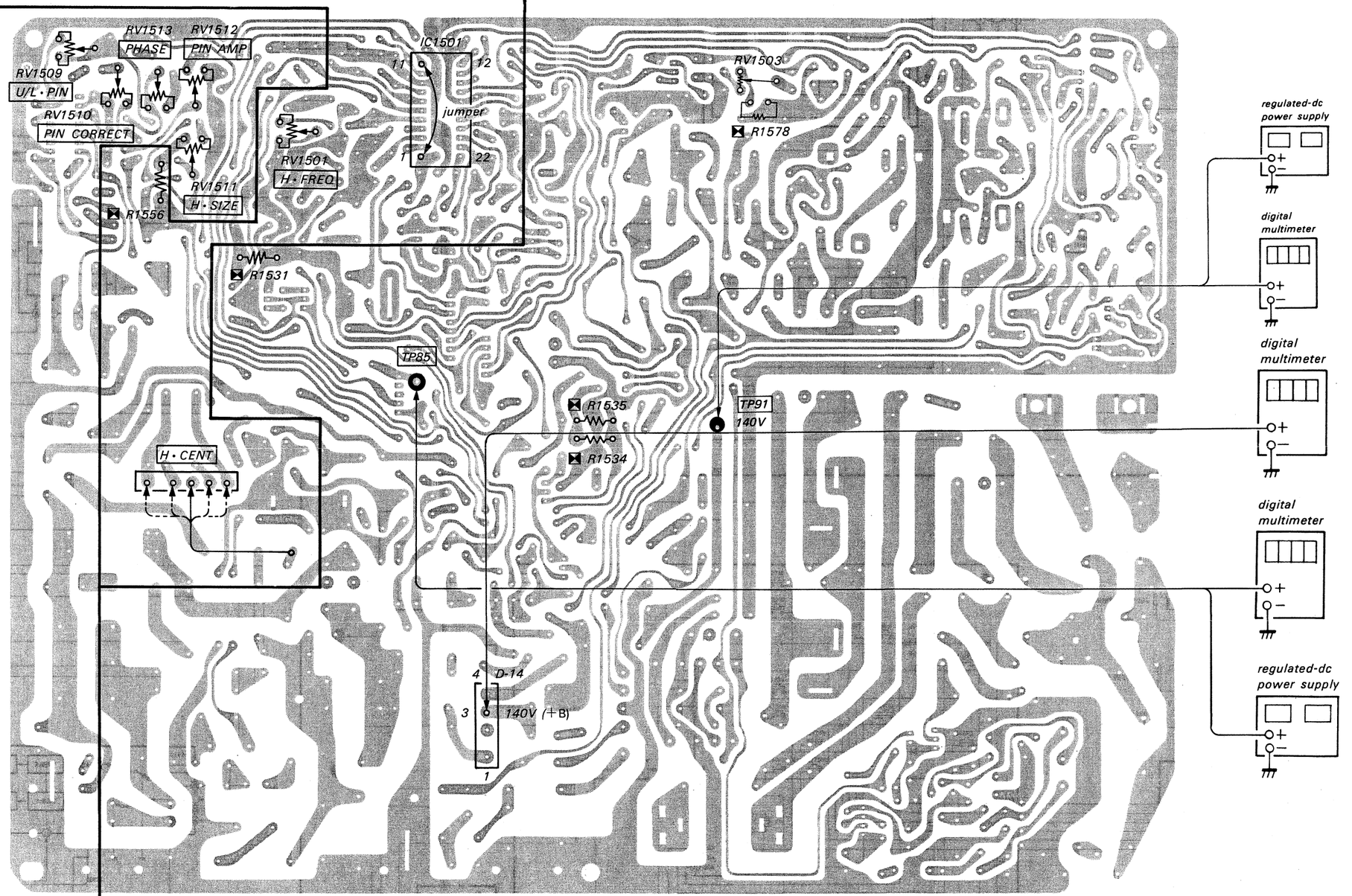
(5) Adjust the horizontal amplitude to 15.5 $^{+0.1}_{-2.0}$ frames with RV1511.

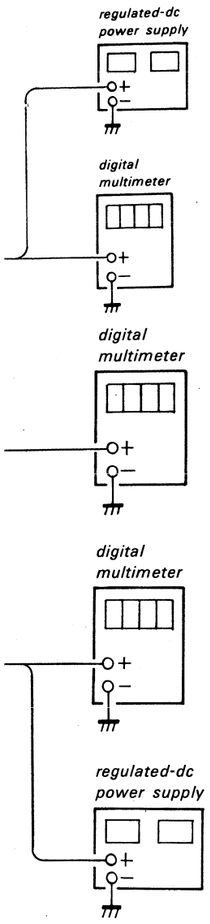
ADJUSTMENT OF HORIZONTAL SYNCHRONIZATION

(1) Connect pin (1) of IC1501 to pin (11). At this time, be sure to connect pin (3) of IC302 on the A board to 12V through 10 kΩ.
(2) Turn the horizontal synchronizing volume (RV1501), and adjust the volume so as to flow of the picture becomes as shown in diagram.
(3) Remove pin (11) from pin (1) and be sure to confirm the horizontal synchronization is normal and whether picture becomes out of order when channel is switched or not.



fo: too low　fo: suitable (fo = 15,734 Hz)　fo : too high





Confirming of Hold Down Circuit

■ R1531, R1534, R1535, R1556, R1578

Perform the adjustment below when replacing any of the following components.

Regarding components of ■ R1531 (HV HOLD DOWN)

◪ D1502, D1507, IC1501, Q1502, Q1503, R427, R431 R437, R438, R1512, R1519, R1529, R1530, R1531, R1532, R1533, R1543, R1544, R1545

Confirmation method

(1) +B MAX confirmation

1) Set AC be 130 $^{+3}_{-0}$ V and distortion rate be less than 3%, and receive monosco and reset picture and brightness.
2) At this point, the voltage on the 140V line should be less than 141.5V DC.

(2) Operational confirmation of detected voltage

1) Set AC be 120V ± 3V and distortion rate be less than 3%, and receive entire white signal, and set the picture and brightness at MAX.
2) At this point, comfirm that the voltage more than 11.0V DC is appeared on TP85.
3) Inaddition, confirm that TP85 holds down when 15.19 $^{+0.0}_{-0.05}$ V DC isapplied to it.
4) Confirm that TP85 does not hold down when the voltage of 14.58 $^{+0.05}_{-0.0}$ V DC is applied to it.
5) Set AC be 120V±3V and distortion rate be less than 3%, and receive dot signal and set the picture and brightness at MIN.
6) Confirm that TP85 holds down when 16.29 $^{+0.0}_{-0.05}$ V DC is applied to it.
7) Confirm that TP85 does not hold down when 15.77 $^{+0.05}_{-0.0}$ V DC is applied to it.

V. SIZE CONFIRMATION

* The following adjustments should always be performed when replacing the following components (marked with ◪ on the components circuit).

* Regarding components of ■ R1578 (V. SIZE)
◪ C1519, C1663, C1664, C1667, C1675, IC1501, L1514, R1522, R1578, R1579, R1580, R1581, R1582, R1583, RV1503, FBT, DY

1. Receive monoscope signal.
2. PICTURE, BRIGHTNESS } RESET
3. Confirm that the V. SIZE at minimum should not exceed 14.6 frames by adjusting RV1503 (V. SIZE).

H. SIZE CONFIRMATION

* The following adjustments should always be performed when replacing the following components (marked with ◪ on the components circuit).

* Regarding components of ■ R1556 (H. SIZE)
◪ C1663, C1664, C1667, C1675, IC1502, L1514, R1556, R1570, R1635, R1636, R1638, RV1511, FBT, DY

1. Receive monoscope signal.
2. PICTURE, BRIGHTNESS } RESET
3. Confirm that the H. SIZE should be within 11.3 to 14.0 frames when adjusting the H. SIZE (RV1511) to maximum.

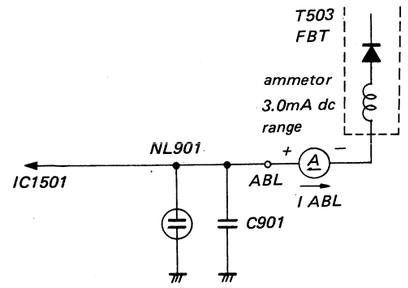
PROTECROE CONFIRMATION

* The following adjustments should always be performed when replacing the following components (marked with ◪ on the component circuit).

* Regarding components of ■ R1534, R1535 (PROTECTOR)
◪ D1508, D1509, IC301, IC401, Q1506, R339, R340, R348, R436, R1534, R1535, R1537, R1538, R1539, R1561, R1576

1. Receive color bar signal.
2. Turn the power supply of the set to ON.
3. PICTURE, BRIGHTNESS, COLOR } maximum
4. Apply DC 125.3 $^{+0.2}_{-0}$ V externally to +B line, and confirm that the PROTECTOR CIRCUIT becomes active and the raster disappears from the screen.

SAFETY RELATED ADJUSTMENT



CONFIRMING OF HV HOLD DOWN (■R1531)

When replacing the following components (marked with ◪ on the schematic diagram), perform the adjustment as follows.

◪ D1502, D1507, IC1501, Q1502,Q1503,R427, R431 R437, R438,R1512, R1519, R1529, R1530,R1531, R1532, R1533, R1543, R1544, R1545

(1) Before Adjustment

1. Supply 120V ac and the POWER switch set to ON.
2. Confirm that there is more than 11.0 V at the hold down check point TP-85.
3. The POWER switch turns OFF.

(2) Readjustment Procedure

1. Disengage ABL terminal of FBT from the foil and connect the ammeter as shown to measure the ABL terminal current.
2. Supply 120V ac and the POWER switch sets to ON.
3. Apply 135V to TP91 from and external DC power supply.
4. Receive a stable signal such as an all-white signal and adjust ABL current to 1600±10μA with PICTURE, BRIGHT, etc. VRs.
5. Confirm that the HV HOLD DOWN CIRCUIT operates and that raster disappears when 15.19 $^{+0.00}_{-0.05}$ V is applied to hold down check point TP-85 from an external DC power supply.

   Note: When raster disappears, cut input voltage and applied voltage immediately.

6. Confirm that the HV HOLD DOWN CIRCUIT does not operate when 14.58 $^{+0.05}_{-0.00}$ V is applied to hold down check point TP-85 from an external DC power supply.

   Note: If the HV HOLD DOWN CIRCUIT operates, immediately cut input and applied voltage.

7. Receive a stable signal such as a dot signal and adjust ABL current for 200±10μA with PICTURE and BRIGHT VRs.
8. Confirm that the HV HOLD DOWN CIRCUIT does not operate when 15.77 $^{+0.05}_{-0.00}$ V is applied to hold down check point TP-85 from an external DC power supply.

   Note: If the HV HOLD DOWN CIRCUIT operates, immediately cut input and applied voltage.

9. Confrim that the HV HOLD DOWN CIRCUIT operates and raster disappears when 16.29 $^{+0.00}_{-0.05}$ V is applied to hold down check point TP-85 from an external DC power supply.

   Note: When raster disappears, cut input voltage and applied voltage immediately.

10. Adjust R1531 so that steps 5, 6, 8 and 9 are satisfied.
11. The POWER switch turns OFF.
12. Remove external DC power supply and DC ammeter.
13. Solder FBT ABL pin.

CHECKING AFTER H.V.R. REPLACEMENT

After replacing H.V.R., *comfirm that there is more than 11.0 V on HOLD DOWN check point TP-85.

* This check is to be performed when H.V.R. only is replaced, and has no relation to the HV hold down circuit readjustment for replacement of parts marked ◪ .

MAXIMUM +B VOLTAGE CONFIRMATION

1. Supply 130V ac to with variable auto-transformer.
2. Tune in an off air signal.
3. Set the PICTURE control to initial setting and BRIGHT control to mechanical center.
4. Confirm the voltage on digital multimeter is less than 141.5V dc.
5. If step 4 is not satisfied, replace IC651 on GB borad and repeat above steps.

CHECK AFTER IC651 REPLACEMENT

1. Supply 130 V ac to with variable auto-transformer.
2. Tune in an off-air signal.
3. Set the PICTURE control to initial setting and BRIGHT to mechanical center.
4. Confirm tha voltage of TP91 is less than 141.5 V dc.
5. If step 4 is not satisfied, replace IC651 in GB board and repeat above spteps.

CONFIRMATION OF H.SIZE (■R1556)

Perform the adjustment below when replacing any of the following components.

◪ C1663, C1664, C1667, C1675, IC1502, L1514, R1556, R1570, R1635, R1636, R1638, RV1511, FBT, DY

Confirmation method

1. Receive monoscope signal.
2. PICTURE, BRIGHTNESS } RESET
3. Confirm that the H.SIZE should be within 11.3 to 14.0 frames when adjusting the H.SIZE (RV1511) to maximum.

CONFIRMATION OF V.SIZE (■R1578)

Perform the adjustment below when replacing any of the following components.

◪ C1519, C1663, C1664, C1667, C1675, IC1501, L1514, R1522, R1578, R1579, R1580, R1581, R1582, R1583, RV1503, FBT, DY

Confirmation method

1. Receive monoscope signal.
2. PICTURE, BRIGHTNESS } RESET
3. Confirm that the V.SIZE at minimum should not exceed 14.6 frames by adjusting RV1503 (V.SIZE).

CONFIRMATION OF PROTECTOR (■R1534, R1535)

Perform the adjustment below when replacing any of the following components.

◪ D1508, D1509, IC301, IC401, Q1506, R339, R340, R348, R436, R1534, R1535, R1537, R1538, R1539, R1561, R1576

Confirmation method

1. Receive color bar signal.
2. Turn the power supply of the set to ON.
3. PICTURE, BRIGHTNESS, COLOR } maximum
4. Aplly DC 125.3 $^{+0.2}_{-0}$ V externally to +B line, and confirm that the PROTECTOR CIRCUIT becomes active and the raster disappears from the screen.

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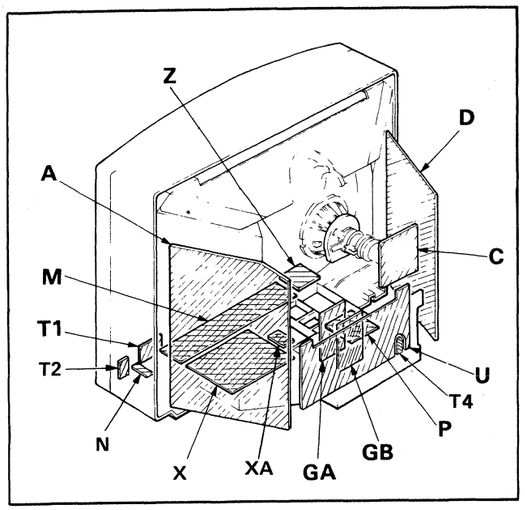
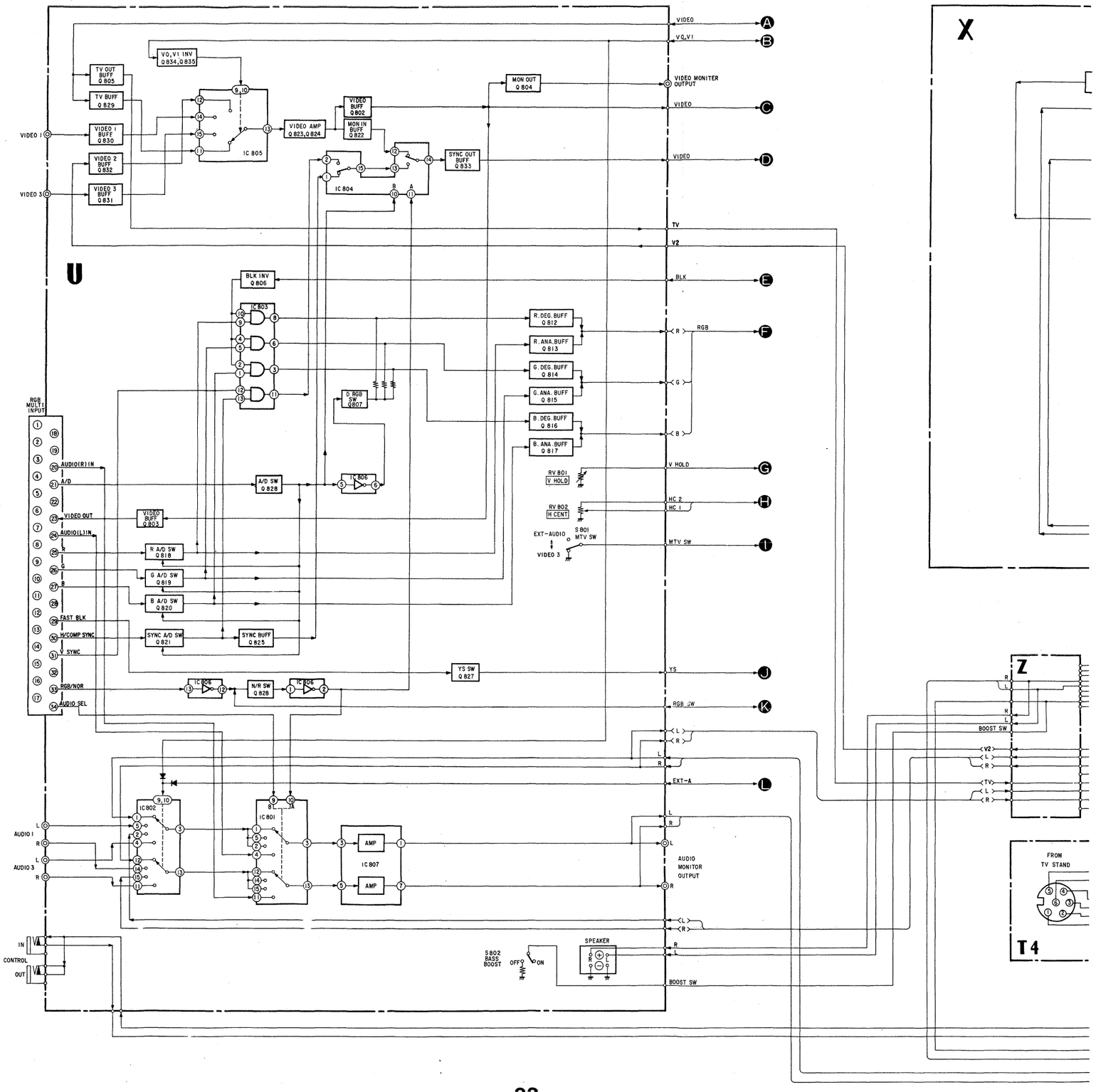
SECTION 5
DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION



5-2. BLOCK DIAGRAM



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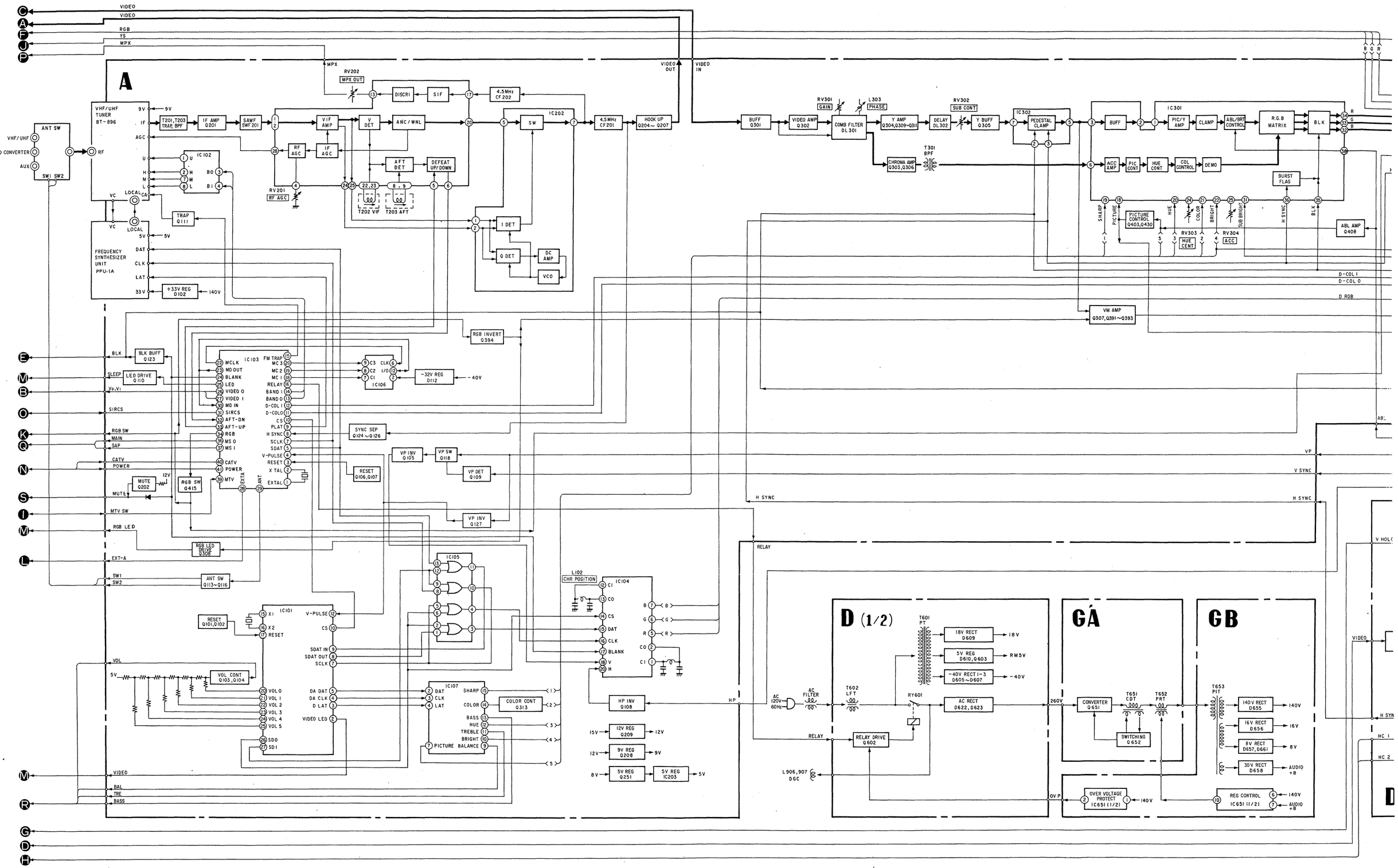
X

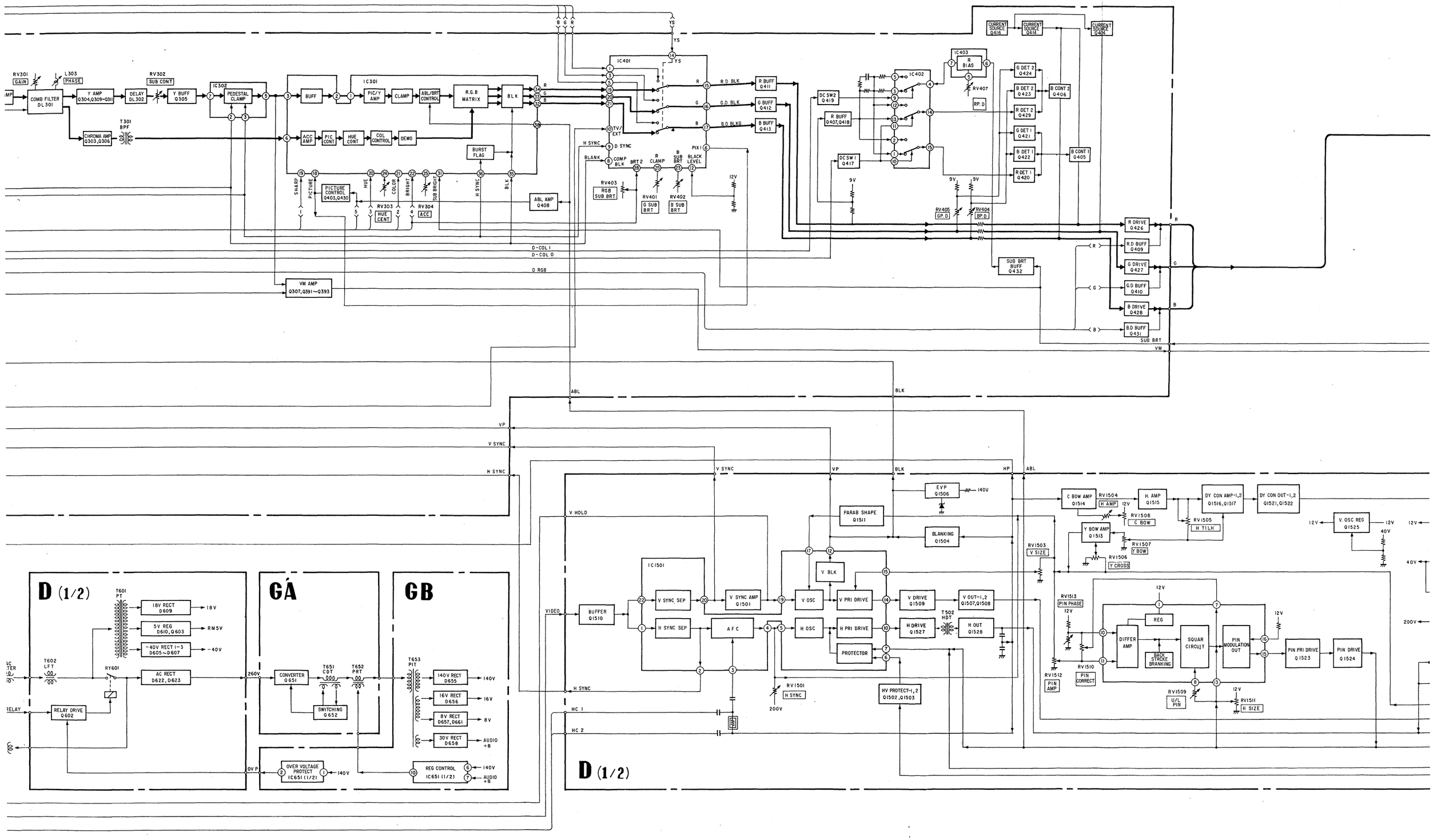
BUFFER Q1110
12KHz LPF T1104
SAP BUFFER Q1109
IC 1104
SAP MUTE-4 Q1107
SAP
MAIN SAP
MUTE
XA
SAP MUTE-7 D1701
SAP MUTE-6 Q1702
SAP MUTE-5 Q1701
SAP
IC 1102 SAP DET
RV1102 VCO I
LPF
VCO
P.D.
SAP AMP-2 Q1108
LIMITER D1103,D1104
SAP AMP-1 Q1105
SAP MUTE-3 Q1106
BPF
MPX BUFFER Q1101
MPX
MUTE Q1104
MUTE DET D1101, D1102
MUTE AMP Q1103
RV1104 MAIN
AMP Q1111
12KHz LPF T1105
MAIN
RV1106 L-R
L-R AMP IC1103(1/2)
L+R AMP IC1103(1/2)
IC 1101
RV1101 VCO 2
VCO
Ø DET
PILOT CANCEL
FF 2fH
FF fHL 90°
FF fHL 0°
VCO STOP
MAIN Hi CUT
HCC
SNC
SUB DET MATRIX
DRIVE
PILOT DET
MAIN BUFFER Q1102
46KHz LPF T1103
STEREO SW Q1112
NR BUFFER 2 Q1123
NR BUFFER 1 Q1124
Z
RV1109 VD
RMS SENSOR
VCA-B
AMP
RMS SENSOR
VCA-A
AMP
IC 1105 N.R
IC 1109(1/2)
RV1109 TIME CONST
RV1110 SEPA
IC 1109(1/2)
IC 1106
MATRIX Q1114~Q1116
L-R
MAIN
SAP
Q1117 MAIN
Q1119 SAP
Q1120 MAIN SAP
Q1118 MAIN SAP
MAIN, SAP
STEREO LED
STEREO SW

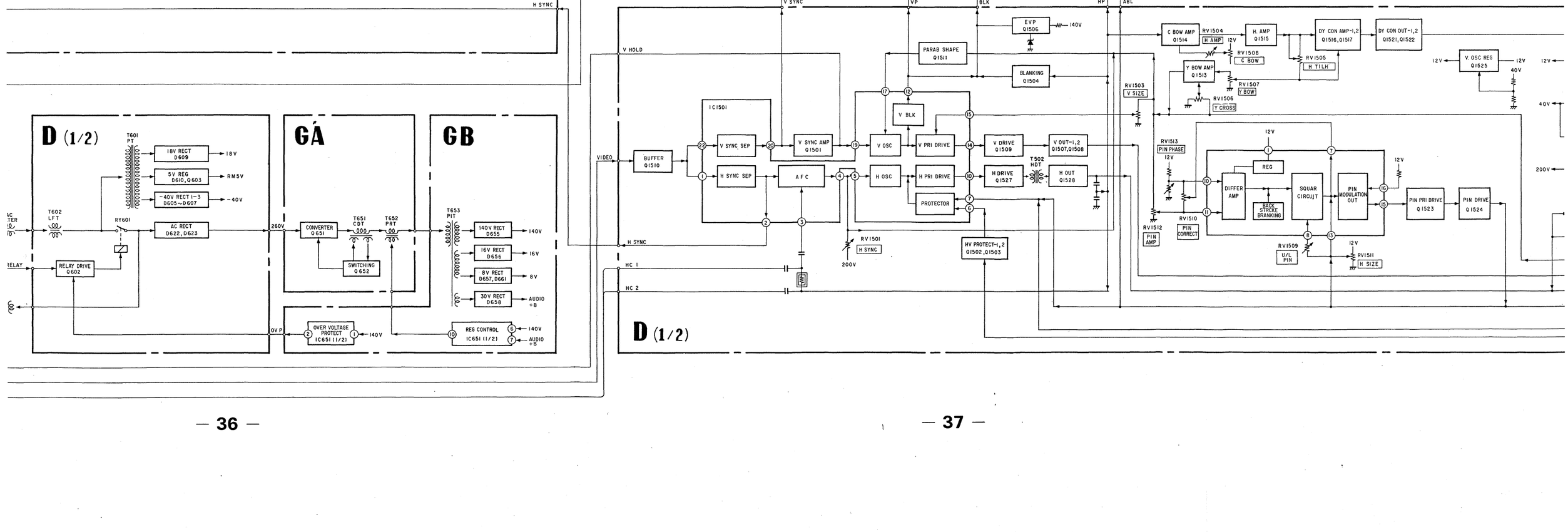
Z
R
L
V
J001 HEAD PHONE
BOOST SW
V2
J002 VIDEO 2
TV
J003 TV OUT
FROM TV STAND
T4

M
MTS
RESET
LEVEL(-)L
R.GB
TV/VIDEO
SELECT
LEVEL(+)R
ANT/AUX
ERASE
ADD
VOL(-)
VOL(+)
PICTURE(-)
CH(-)
PICTURE(+)
CH(+)
IC 301
K15
K14
K13
K12
K11
IND
CL1
CL2
K03
K04
K05
K16
K17
K18
MDO
IR
K14
K16
K13
K12
K11
K03
DET D1306
SIRCS SW Q1301
SIRCS
SIRCS SW Q1302,Q1303
ST
SW1321 AUTO
OFF
ON
SW1322 C.ATV
OFF
ON
T1
STEREO
VIDEO
RGB
SLEEP
SLEEP
RGB LED
VIDEO
T2
POWER
SW1323
POWER
CATV
DI DET
PREAMP IC1
N

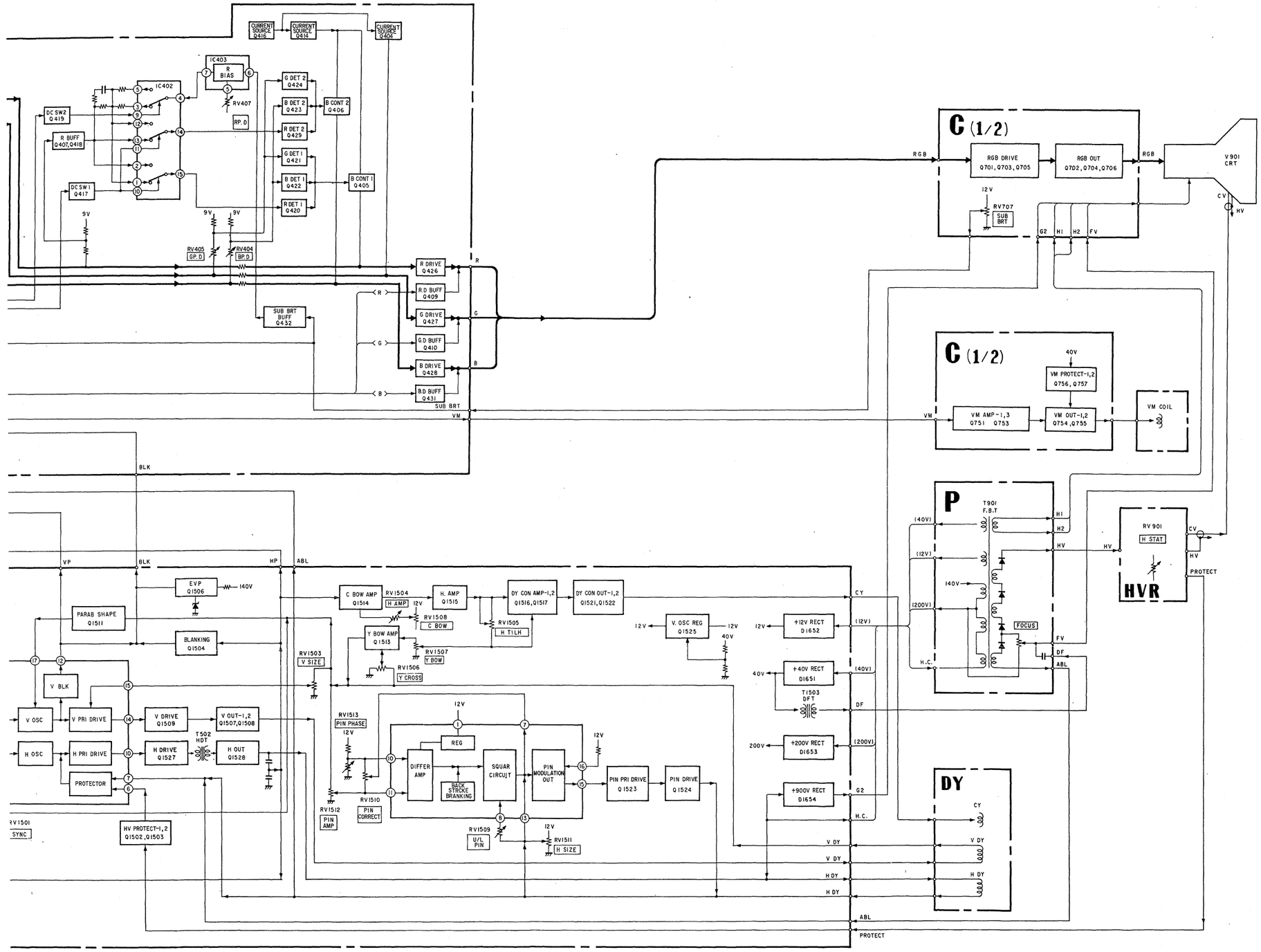
IC1107
BASS
TREBLE
BALANCE
VOLUME
BASS
TREBLE
BALANCE
VOLUME
RV1107 R LEVEL
IC 1108
MUTING Q1113
BASS
TRE
BAL
VOL
12V
12V REG Q1121
12V REG DRIVE Q1122
15V
L IN
R IN
L OUT
R OUT
L
R
MUTE
BOOST


A
VIDEO
VIDEO
RGB
YS
MPX
MPX
VIDEO OUT
VIDEO IN
RV202 MPX OUT
ANT SW
VHF/UHF
TO CONVERTER
AUX
SW1 SW2
VHF/UHF TUNER BT-896
9V
IF
AGC
U
H
M
L
RF
VC
LOCAL
CA
BO
B1
IC102
T201,T203 TRAP, BPF
IF AMP Q201
SAWF SWF 201
VIF AMP
V DET
ANC/WNL
DISCRI
SIF
4.5MHz CF202
4.5MHz CF201
HOOK UP Q204~Q207
IC202
SW
RF AGC
IF AGC
AFT DET
DEFEAT UP/DOWN
RV201 RF AGC
T202 VIF
T203 AFT
I DET
Q DET
DC AMP
VCO
TRAP Q111
FREQUENCY SYNTHESIZER UNIT PPU-1A
5V
DAT
CLK
LAT
33V
+33V REG D102
140V
BUFF Q301
VIDEO AMP Q302
COMB FILTER DL301
RV301 GAIN
L303 PHASE
Y AMP Q304,Q309~Q311
DELAY DL302
RV302 SUB CONT
Y BUFF Q305
CHROMA AMP Q303,Q306
T301 BPF
IC302
PEDESTAL CLAMP
IC301
BUFF
PIC/Y AMP
CLAMP
ABL/BRT CONTROL
R.G.B MATRIX
BLK
ACC AMP
PIC CONT
HUE CONT
COL CONTROL
DEMO
BURST FLAG
SHARP
PICTURE
HUE
COLOR
BRIGHT
SUB BRIGHT
H SYNC
BLK
PICTURE CONTROL Q403,Q430
RV303 HUE CENT
RV304 ACC
ABL AMP Q408
D-COL I
D-COL O
D RGB
VM AMP Q307,Q391~Q393
RGB INVERT Q394
BLK
BLK BUFF Q123
SLEEP
LED DRIVE Q110
Vo,V1
SIRCS
RGB SW
MAIN
SAP
CATV POWER
MUTE
MUTE Q202
12V
RGB SW Q415
MTV SW
RGB LED
RGB LED DRIVE Q308
EXT-A
SW1
SW2
ANT SW Q113~Q116
IC103
MCLK
MD OUT
BLANK
LED
VIDEO O
VIDEO I
MD IN
SIRCS
AFT-DN
AFT-UP
RGB
MS O
MS I
CATV
POWER
MTV
DATA
ANT
FM TRAP
MC 3
MC 2
MC 1
RELAY
BAND I
BAND O
D-COL I
D-COLO
CS
PLAT
H SYNC
SCLK
SDAT
V-PULSE
RESET
X TAL
EXTAL
IC106
C3 CLK
C2 I/O
C1
~32V REG D112
~40V
SYNC SEP Q124~Q126
RESET Q106,Q107
VP INV Q105
VP SW Q118
VP DET Q109
VP INV Q127
IC105
IC101
X1
X2
RESET
RESET Q101,Q102
V-PULSE
CS
SDAT IN
SDAT OUT
SCLK
DA DAT
DA CLK
D LAT
VIDEO LED
VOL
5V
VOL CONT Q103,Q104
VOL 0
VOL 1
VOL 2
VOL 3
VOL 4
VOL 5
SDO
SDI
IC107
DAT
CLK
LAT
PICTURE BALANCE
SHARP
COLOR
BASS
HUE
TREBLE
BRIGHT
COLOR CONT Q313
L102 CHR POSITION
IC104
C1
CO
CS
DAT
CLK
BLANK
V
H
B
G
R
HP INV Q108
15V REG Q209
12V
9V REG Q208
9V
8V
5V REG Q251
5V REG IC203
5V
VIDEO
BAL
TRE
BASS
HP
AC 120V 60Hz
AC FILTER
T602 LFT
RY601
RELAY
RELAY DRIVE Q602
L906,907 DGC
T601 PT
18V RECT D609
18V
5V REG D610,Q603
RM5V
-40V RECT 1-3 D605~D607
-40V
AC RECT D622,D623
260V
0V P
OVER VOLTAGE PROTECT IC651 (1/2)
140V
D (1/2)
GA
GB
CONVERTER Q651
T651 CDT
T652 PRT
SWITCHING Q652
T653 PIT
140V RECT D655
140V
16V RECT D656
16V
8V RECT D657,D661
8V
30V RECT D658
AUDIO +B
REG CONTROL IC651 (1/2)
VP
V SYNC
H SYNC
VIDEO
H SYN
HC 1
HC 2
B G R


RV301 GAIN
L303 PHASE
RV302 SUB CONT
COMB FILTER DL 301
Y AMP Q304,Q309~Q311
DELAY DL302
Y BUFF Q305
IC302
PEDESTAL CLAMP
CHROMA AMP Q303,Q306
T301 BPF
IC301
BUFF
PIC/Y AMP
CLAMP
ABL/BRT CONTROL
R.G.B MATRIX
BLK
ACC AMP
PIC CONT
HUE CONT
COL CONTROL
DEMO
BURST FLAG
SHARP
PICTURE
PICTURE CONTROL Q403,Q430
HUE
COLOR
BRIGHT
SUB BRIGHT
RV303 HUE CENT
RV304 ACC
H SYNC
BLK
ABL AMP Q408
VM AMP Q307,Q391~Q393
D-COL I
D-COL O
D RGB
IC401
TV/EXT
H SYNC
D SYNC
BLANK
COMP BLK
BRT 2
R CLAMP
B SUB BRT
PIX I
BLACK LEVEL
RV403 RGB SUB BRT
RV401 G SUB BRT
RV402 B SUB BRT
12V
R D BLK
G D BLK
B D BLKG
R BUFF Q411
G BUFF Q412
B BUFF Q413
DC SW2 Q419
R BUFF Q407,Q418
DC SW1 Q417
IC402
IC403 R BIAS
RV407 RP.D
9V
RV405 GP.D
RV404 BP.D
CURRENT SOURCE Q416
CURRENT SOURCE Q414
CURRENT SOURCE Q404
G DET 2 Q424
B DET 2 Q423
R DET 2 Q429
G DET 1 Q421
B DET 1 Q422
R DET 1 Q420
B CONT 2 Q406
B CONT 1 Q405
SUB BRT BUFF Q432
R DRIVE Q426
R.D BUFF Q409
G DRIVE Q427
G.D BUFF Q410
B DRIVE Q428
B.D BUFF Q431
SUB BRT
VM
ABL
BLK
VP
V SYNC
H SYNC

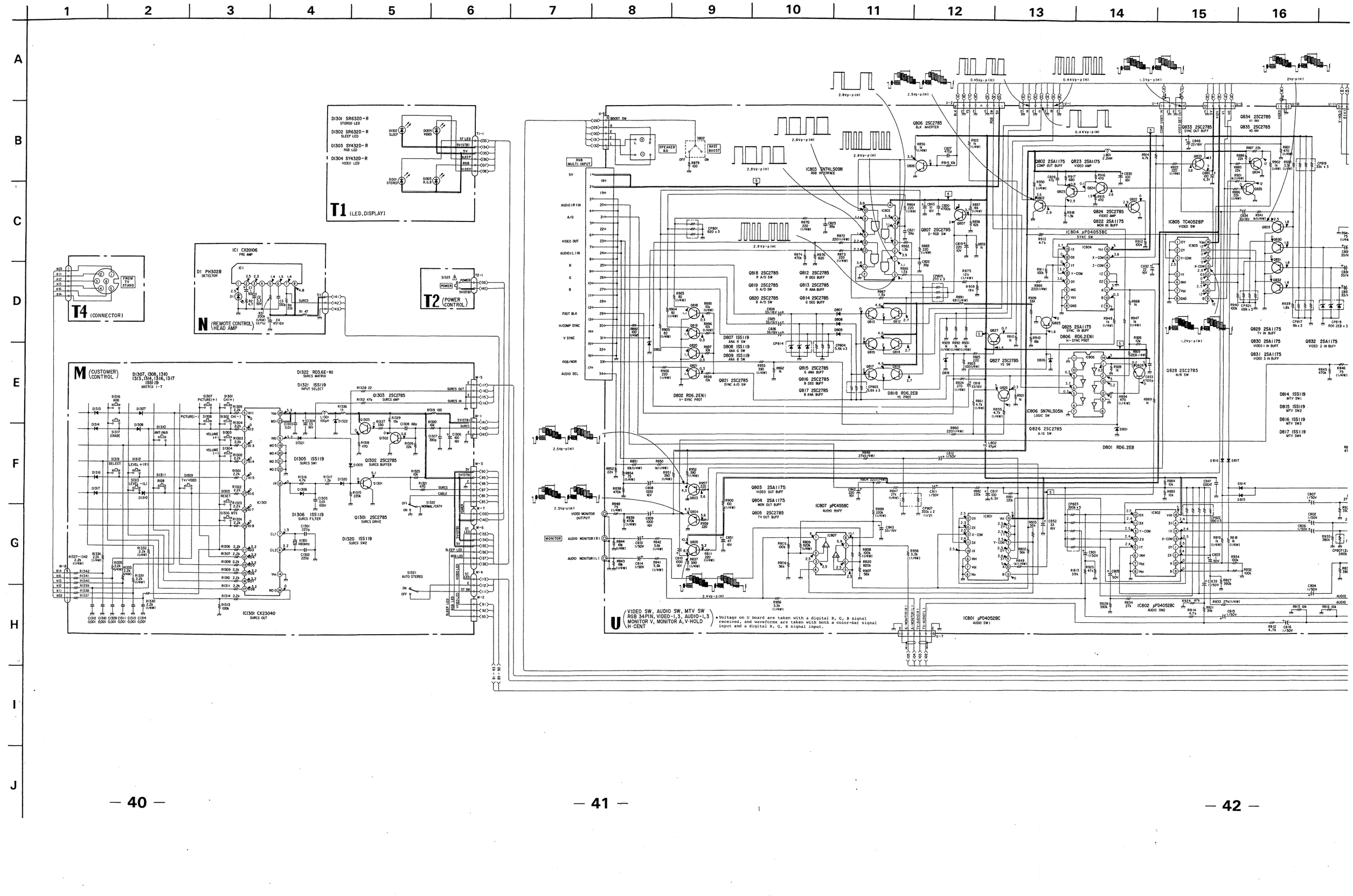

D (1/2)
T601 PT
18V RECT D609
5V REG D610,Q603
-40V RECT 1-3 D605~D607
AC RECT D622,D623
T602 LFT
RY601
RELAY DRIVE Q602
260V
0V P
GA
CONVERTER Q651
T651 CDT
T652 PRT
SWITCHING Q652
OVER VOLTAGE PROTECT IC651 (1/2)
GB
T653 PIT
140V RECT D655
16V RECT D656
8V RECT D657,D661
30V RECT D658
REG CONTROL IC651 (1/2)
AUDIO +B
VIDEO
BUFFER Q1510
IC1501
V SYNC SEP
H SYNC SEP
V SYNC AMP Q1501
AFC
V OSC
H OSC
V PRI DRIVE
H PRI DRIVE
PROTECTOR
V BLK
V DRIVE Q1509
H DRIVE Q1527
V OUT-1,2 Q1507,Q1508
T502 HDT
H OUT Q1528
RV1501 H SYNC
200V
HV PROTECT-1,2 Q1502,Q1503
HC 1
HC 2
V HOLD
HP
ABL
EVP Q1506
140V
PARAB SHAPE Q1511
BLANKING Q1504
C BOW AMP Q1514
RV1504 H AMP
H AMP Q1515
DY CON AMP-1,2 Q1516,Q1517
DY CON OUT-1,2 Q1521,Q1522
RV1508 C BOW
RV1505 H TILT
Y BOW AMP Q1513
RV1507 Y BOW
RV1506 Y CROSS
RV1503 V SIZE
V. OSC REG Q1525
40V
200V
RV1513 PIN PHASE
RV1512 PIN AMP
RV1510 PIN CORRECT
DIFFER AMP
REG
BACK STROKE BRANKING
SQUAR CIRCUIT
PIN MODULATION OUT
PIN PRI DRIVE Q1523
PIN DRIVE Q1524
RV1509 U/L PIN
RV1511 H SIZE

KV-25XBR
RM-724/APM-X3U
KV-25XBR
RM-724/APM-X3U



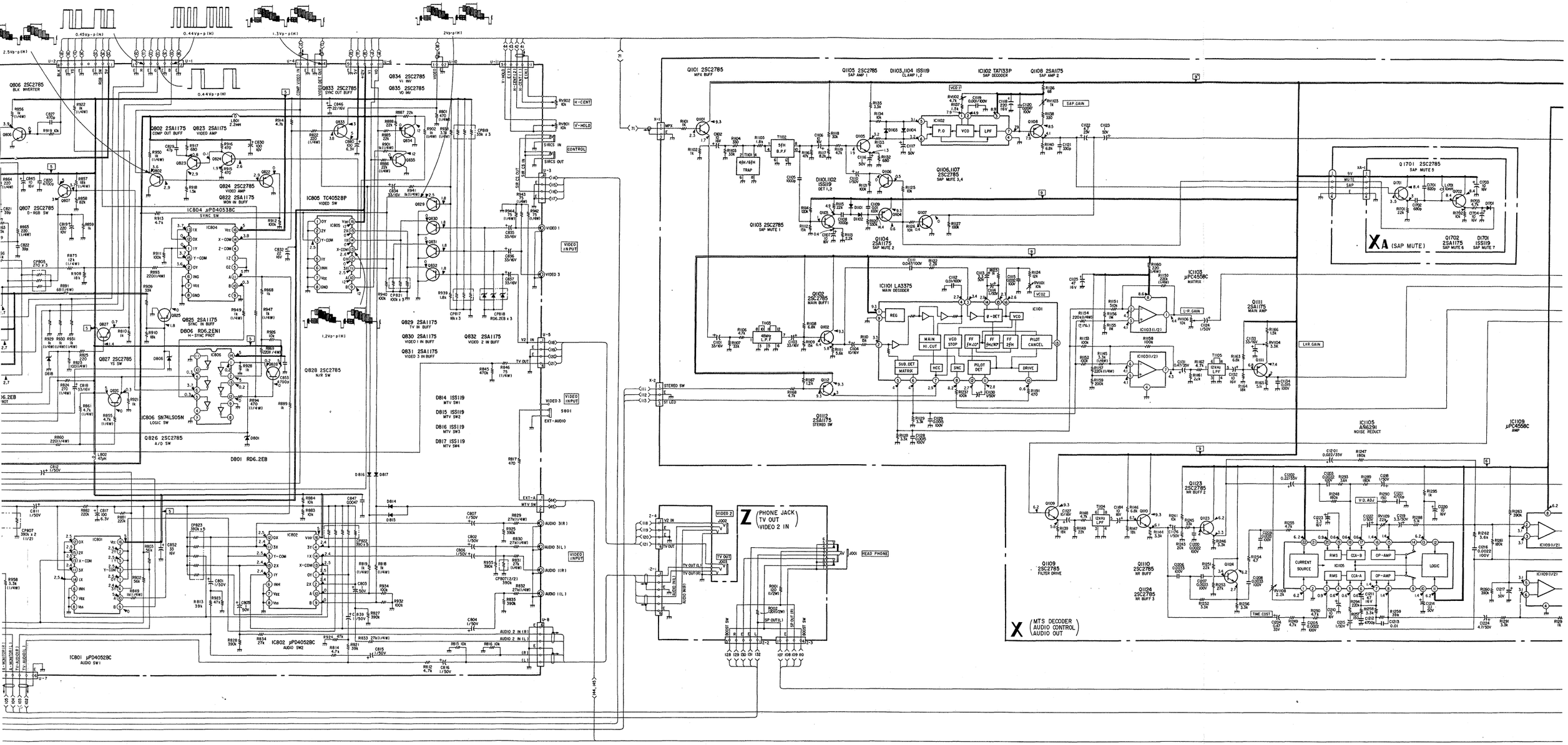
KV-25XBR
RM-724/APM-X3U
KV-25XBR
RM-724/APM-X3U

5-3. SCHEMATIC DIAGRAM



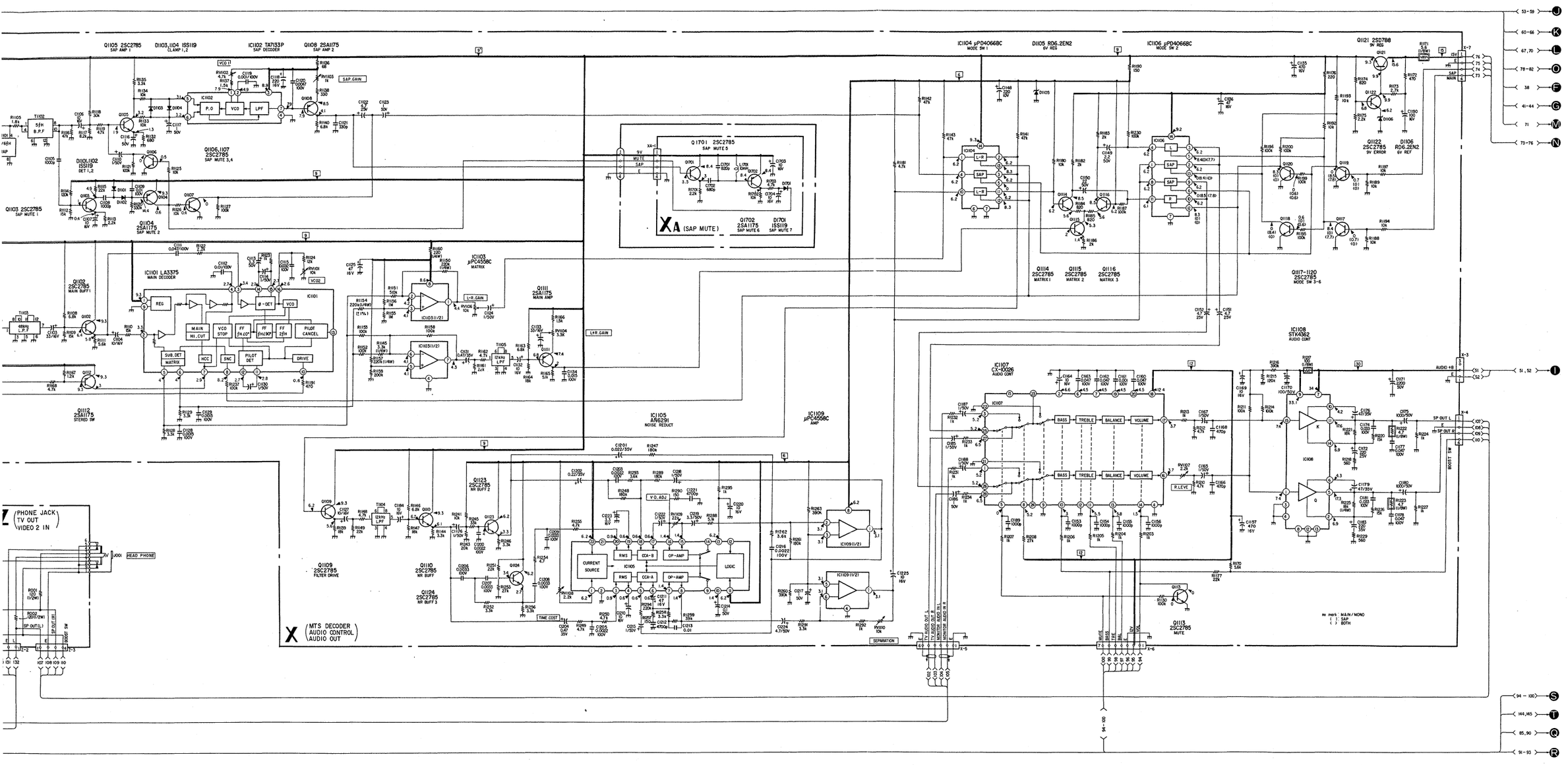
KV-25XBR
RM-724/APM-X3U

12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28



KV-25XBR
RM-724/APM-X3U

20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35



CHANNEL	VOLTAGE
VHF CH2 - A-3	2V - 22V
VHF CHA - 2 - 13	2V - 23V
VHF CHJ - W+58	1.5V - 25V
UHF CH14 - 83	1.3V - 27V

MEASURED USING VTVM

ANT SW
VHF/UHF
TO CONVERTER
AUX
SW 1
E
SW 2

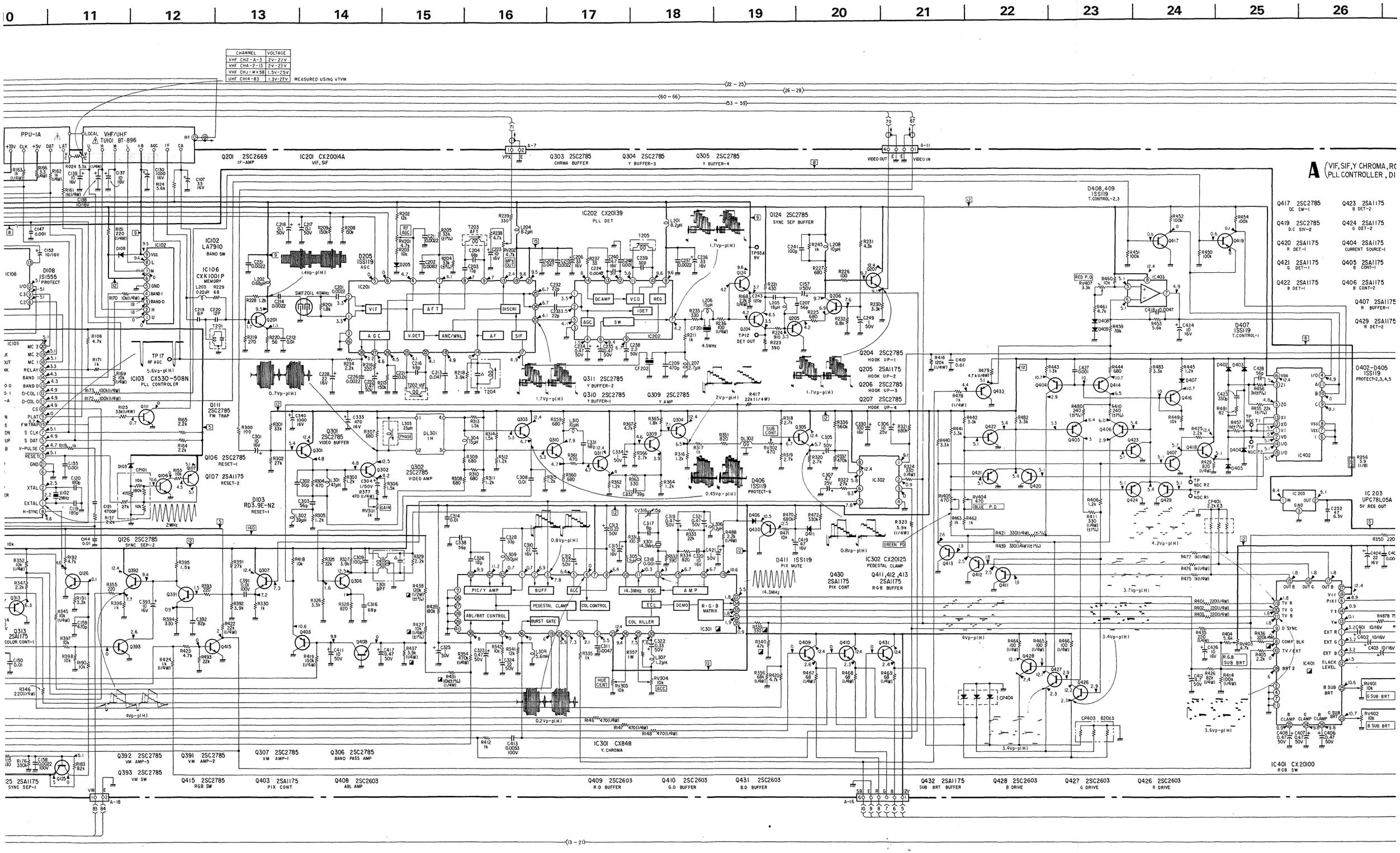
PPU-1A
LOCAL
VHF/UHF TUI01 BT-896
RF

Q201 2SC2669 IF-AMP
IC201 CX20014A VIF, SIF

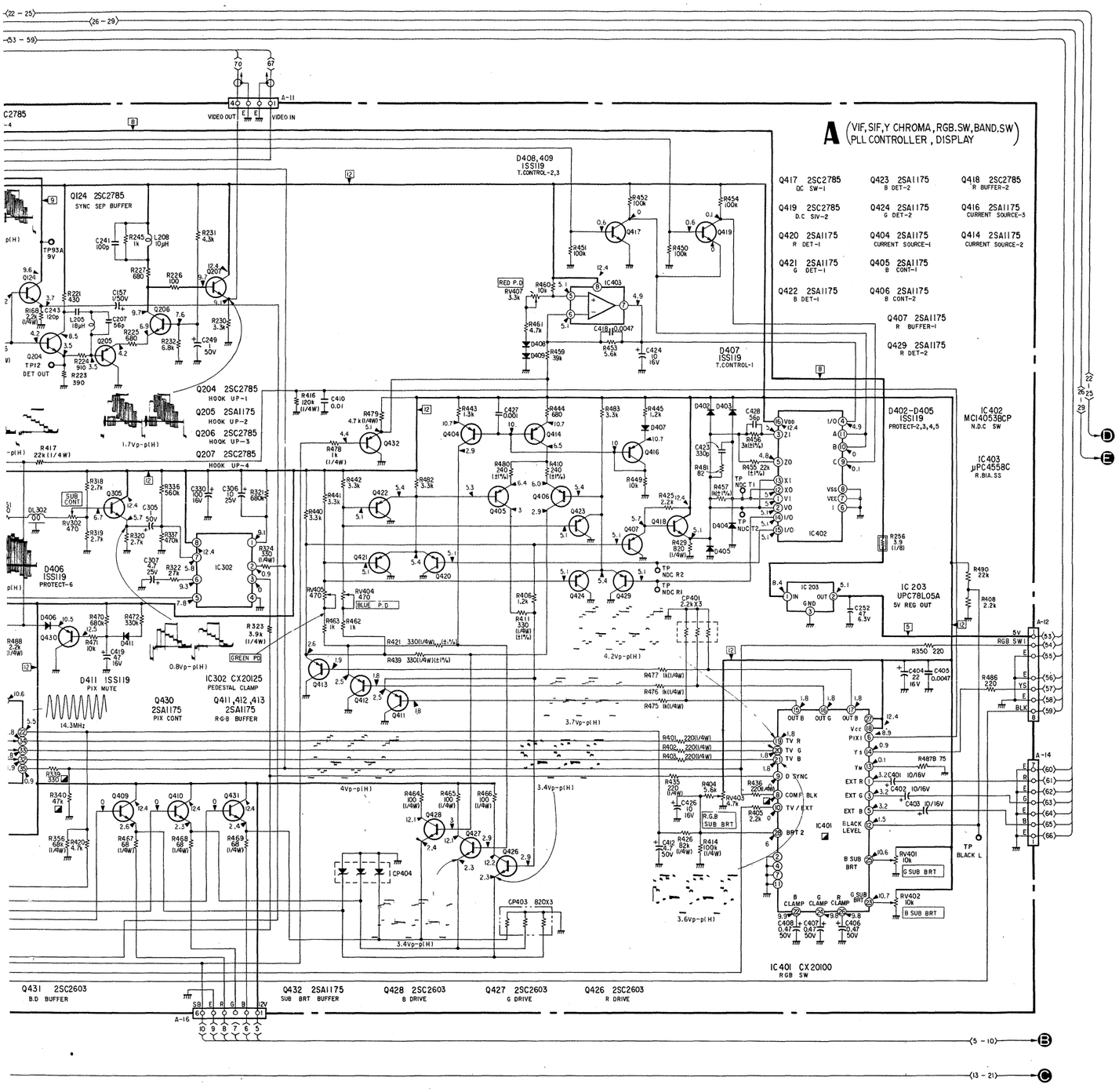
IC102 LA7910 BAND SW
IC106 CXK1001P MEMORY
IC103 CX530-508N PLL CONTROLER
IC104 CX7958 DISPLAY 5Vp-p(V)
IC101 CX526-025 DISPLAY
IC105 μPD4071BC GATE
IC107 μPD6326C A/D CONV

D205 ISS119 AGC
D101 ISS119 RESET
D102 HZ33-02 33V REF
D108 IS1555 PROTECT
D111 RD4.7E-N2 VP CLAMP
D109 ISS119 VP SLICE
D110 IS1555 VP SW
D118 VP
D104 RD3.9E-N2 RESET-2
D103 RD3.9E-N2 RESET-1
D113 IS1555 MUTE
D202 ISS119 MUTE
D251 RD5.6E-N2 5V REG REF
D117 RD5.6ENI REG
D112 RD33E-B3 -32V REF
D203 RD10E-N3 9V REG REF
D204 RD13E-N2 12V REG REF

Q251 2SD880 5V REG OUT
Q208 2SD880 9V REG OUT
Q209 2SD1406 12V REG OUT
Q308 2SC2785 RGB LED DRIVE
Q394 2SC2785 RGB INVERT
Q123 2SC2785 BLKG BUFFER-2
Q110 2SC2785 LED DRIVE
Q313 2SA1175 COLOR CONT-1
Q111 2SC2785 FM TRAP
Q106 2SC2785 RESET-1
Q107 2SA1175 RESET-2
Q126 2SC2785 SYNC SEP-2
Q125 2SA1175 SYNC SEP-1
Q301 2SC2785 VIDEO BUFFER
Q302 2SC2785 VIDEO AMP
Q392 2SC2785 VM AMP-3
Q393 2SC2785 VM SW
Q391 2SC2785 VM AMP-2
Q415 2SC2785 RGB SW
Q307 2SC2785 VM AMP-1
Q403 2SA1175 PIX CONT
Q306 2SC2785 BAND PASS AMP
Q408 2SC2603 ABL AMP
Q113 2SA1175 ANT SW-1
Q114 2SA1175 ANT SW DRIVE-2
Q115 2SA1175 ANT SW-2
Q116 2SC2785 ANT SW DRIVE-1
Q108 2SC2785 H.P INVERT
Q127 2SC2785 V INV
Q105 2SC2785 V.P-INV
Q109 2SC2785 VP DET
Q118 VP
Q101 2SA1175 RESET-2
Q102 2SC2785 RESET-1
Q103 2SC2785 VOL.CONT-1
Q104 2SA1175 VOL.CONT-2
Q202 2SA1175 MUTE


CHANNEL VOLTAGE
VHF CH2-A-3 2V-22V
VHF CHA-2-13 2V-23V
VHF CHJ-W+58 1.5V-25V
UHF CH14-83 1.3V-27V
MEASURED USING VTVM
PPU-1A
VHF/UHF TU101 BT-896
Q201 2SC2669 IF-AMP
IC201 CX20014A VIF, SIF
Q303 2SC2785 CHRMA BUFFER
Q304 2SC2785 Y BUFFER-3
Q305 2SC2785 Y BUFFER-4
IC202 CX20139 PLL DET
Q124 2SC2785 SYNC SEP BUFFER
IC102 LA7910 BAND SW
IC106 CXK1001P MEMORY
D205 1SS119 AGC
IC103 CX530-508N PLL CONTROLER
Q111 2SC2785 FM TRAP
Q106 2SC2785 RESET-1
Q107 2SA1175 RESET-2
D103 RD3.9E-N2 RESET-1
Q301 2SC2785 VIDEO BUFFER
Q302 2SC2785 VIDEO AMP
Q311 2SC2785 Y BUFFER-2
Q310 2SC2785 Y BUFFER-1
Q309 2SC2785 Y AMP
Q204 2SC2785 HOOK UP-1
Q205 2SA1175 HOOK UP-2
Q206 2SC2785 HOOK UP-3
Q207 2SC2785 HOOK UP-4
D406 1SS119 PROTECT-6
D411 1SS119 PIX MUTE
IC302 CX20125 PEDESTAL CLAMP
Q430 2SA1175 PIX CONT
Q411,412,413 2SA1175 R-G-B BUFFER
Q126 2SC2785 SYNC SEP-2
Q313 2SA1175 COLOR CONT-1
IC301 CX848 Y. CHROMA
Q392 2SC2785 VM AMP-3
Q393 2SC2785 VM SW
Q391 2SC2785 VM AMP-2
Q307 2SC2785 VM AMP-1
Q306 2SC2785 BAND PASS AMP
Q415 2SC2785 RGB SW
Q403 2SA1175 PIX CONT
Q408 2SC2603 ABL AMP
Q409 2SC2603 R.D BUFFER
Q410 2SC2603 G.D BUFFER
Q431 2SC2603 B.D BUFFER
Q432 2SA1175 SUB BRT BUFFER
Q428 2SC2603 B DRIVE
Q427 2SC2603 G DRIVE
Q426 2SC2603 R DRIVE
IC401 CX20100 RGB SW
IC203 UPC78L05A 5V REG OUT
D408,409 1SS119 T.CONTROL-2,3
D407 1SS119 T.CONTROL-1
D402-D405 1SS119 PROTECT-2,3,4,5
Q417 2SC2785 DC SW-1
Q419 2SC2785 D.C SW-2
Q420 2SA1175 R DET-1
Q421 2SA1175 G DET-1
Q422 2SA1175 B DET-1
Q423 2SA1175 B DET-2
Q424 2SA1175 G DET-2
Q404 2SA1175 CURRENT SOURCE-1
Q405 2SA1175 B CONT-1
Q406 2SA1175 B CONT-2
Q407 2SA1175 R BUFFER-1
Q429 2SA1175 R DET-2
A (VIF, SIF, Y CHROMA, RC PLL CONTROLLER, DI

KV-25XBR
RM-724/APM-X3U



Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

- All Capacitors are in μF unless otherwise noted, pF: μμF 50 WV or less are not indicated except for electrolytics.
- All resistors are in ohms. 1/6W unless otherwise noted. kΩ = 1000Ω, MΩ = 1000kΩ
- Standard for the M Board is 1/4W:
- ▭ : nonflamable resistor.
- △ : internal component.
- ▭ : panel designation.
- All variable and adjustable resistors have characteristics curve B, unless otherwise noted.
- The components indentified by ⚠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪ mark the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⚠ and repeat the adjustment until the specified value is achieved.
  (Refer to R1531, R1534, R1535, R1556, R1578 adjustment on page 29.)
  When replacing the part in below table, be sure to perform the related adjustment.

Part replaced (◪)	Adjustment (⚠)
D1502, D1507, IC1501 Q1502, Q1503, R427 R431, R437, R438 R1512, R1519, R1529 R1530, R1531, R1532 R1533, R1543, R1544 R1545	R1531
D1508, D1509, IC301 IC401, Q1506, R339 R340, R348, R436 R1534, R1535, R1537 R1538, R1539, R1561 R1576	R1534, R1535
C1663, C1664, C1667 C1675, IC1502, L1514 R1556, R1570, R1635 R1636, R1638, RV1511 FBT, DY	R1556
C1519, C1663, C1664 C1667, C1675, IC1501 L1514, R1522, R1578 R1579, R1580, R1581 R1582, R1583, RV1503 FBT, DY	R1578

- All voltages are in V.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- ——— : B + bus.
- - - - : B − bus.
- Voltage variations may be noted due to normal production tolerances.
- ▭ : adjustment for repair.

KV-25XBR
RM-724/APM-X3U

KV-25XBR
RM-724/APM-X3U

CAUTION
When replacing IC651, be sure to check the test point voltage value (TP91). Refer to the Safety Adjustments Section.

CAUTION
This set is equipped with a polarized ac power cord plug (one blade of the plug is wider than the other). When replacing the ac power cord, be sure to connect it with specified part number as shown in this diagram.

GB (140V REG, 140V RECT, 16V RECT, 8V RECT, 30V RECT)

IC651 DM2I MODULE
D655 CTU-24S 140V RECT
D658 CTL-I2S 30V RECT
D656 CTL-I2S 16V RECT
D661 RU-2M 8V RECT
D657 RU-2M 8V RECT

IC651
T653 PIT
L653 3.3μH
L659 3.3μH
L654 0.7μH
L655 5.6μH
L656 32μH
D655
D656
D657
D658
D661
F651 3.15A
L657 0.7μH
D659 0.0047/630V
C660 0.0047/630V
C661 0.01 1kV
C662 560 160V
C663 0.001/500V
C664 0.001 500V
C665 2200 25V
C666 470 16V
C667 0.001/500V
C669 470 50V
C656 0.01 100V
R661 3.3M (1/2W)
R657 3k (1W)
R658 100 (1/8W)
R659 100 (1/8W)
R663 15k (1W)
OVP
+140V
16V
+8V
AUDIO +8
PRT
I6V

GA (CONVERTER)

T652 PRT
T651 CDT
C672 0.001/500V
C675 0.001/500V
C651 0.001/500V
C655 0.12/400V
D652
320V RECT
Q651
R662 0.1 (2W)
L651 0.3μH
L660 0.3μH
D651 RM2CS PROTECT
C680 330p/500V
R651 100Ω(2W)
R655 1(2W)
C652 0.1 200V
R653 470Ω(1/2W)
R660 470k (1/2W)
C681 330p/500V
C673 0.001 500V
C677 0.001 500V
C653 0.001 500V
Q652
L661 0.3μH
L652 0.3μH
D653
D654 V19E DAMPER
R656 0.1 (2W)
C654 0.1 200V
Q651 2SC3163 CONVERTER
Q652 2SC3163 CONVERTER
D652 V-19E DAMPER

D (POWER SUPPLY, H.DEF.V.DET. HV OSC PIN CORRECTION, DYNAMIC CONVERGENCE DYNAMIC FOCUS)

Q1501 2SA1175 V.SYNC.AMP
Q1510 2SA1175 BUFFER
IC1501 μPC1377C JUNGLE
SYNC SEP
AFC
H.OSC
V.OSC
V.DRIVE
V.BLK
PROT
AMP
REG
H.FREQ
D1501 1SS119 H.OSC LIMIT
D1507 RD5.6E-B2ZS HV.PROT REF
D1504 GP08D BACK UP
D1510 1SS119 BIAS
D1502 RD24E-BZ7 HV.PROT REG
D1503 RD5.6E-B2 H.BLK SLICE
D1508 RD5.6EL2 EVP REF
D1509 1T40 EVP COMPEN
Q1501 2SA1175 V.SYNC.AMP
Q1502 2SC2785 HV.PROTECT1
Q1503 2SC2785 HV.PROTECT2
Q1504 2SC2785 BLANKING
Q1506 2SA1175-E EVP
Q1509 2SC2958 V.DRIVE
Q1508 2SA1220A V.OUT-2
Q1507 2SC2690A V.OUT-1
Q1511 2SC2785 PARAB SHAPE
Q1525 2SC2785 V.OSC REG
Q1502 2SC2785 V.OUT BIAS2
D1516 SIB01-02 DY.CON AMP-1 V.OUT BIAS1
D1511 1SS119 V.BLANKING
D1501 1SS119 H.OSC LIMIT
D1502 RD24E-BZ7 HV.PROT REG
D1503 RD5.6E-B2 H.BLK SLICE
D1507 RD5.6E-B2ZS HV.PROT REF
D1508 RD5.6EL2 EVP REF
D1509 1T40 EVP COMPEN
D1510 1SS119 BIAS
D1512
D1513
D1514
D1515
D1516
IC1502 TDA1082 E-W PIN.MOD
DIFFER-ENTIAL AMP
SQUARE
BLK
REG
U/L PIN
PIN PHASE
PIN CORRECT
PIN AMP
D622 U05E AC RECT-1
D623 U05E AC RECT-2
D621 SIB01-02 RELAY PROTECT
Q602 2SC1652 RELAY DRIVE
D605 GP08D -40V RECT-2
D606 1SS119 -40V RECT-1
D607 1SS119 -40V RECT-3
D609 SIVB10-S 18V RECT
Q603 2SD1406 5V REG
D610 RD5.6E-N3 5V REG
Q1527 2SC2752 H.DRIVE
Q1528 2SD1497-06 H.OUT
T1502 HDT
T601
T602
RY601
THP601
AC120V 60Hz
AC FILTER
F601 7A/125V
D1655 ERC
D1656 ERC
D1657 ERD
PROTECT
VIDEO
E(H)
HC(I)
E(V)
V-HOLD
DGC
L306
L307
+16V
+8V
+140V
OVP
RECT 320V
E(HOT)

: See page 29

: See page 29

KV-25XBR
RM-724/APM-X3U

KV-25XBR
RM-724/APM-X3U

12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

CAUTION
When replacing HVR, be sure to check the HOLD DOWN check point voltage value. Refer to the Safety Adjustment Section of the Service Manual.

Be sure to conn

: See page 29

: See page 29

HVR (HIGH VOLTAGE RESISTOR ASSY)

C (R·G·B OUT, VM)

P (FBT)

DY

20 21 22 23 24 25 26 27 28 29 30 31 32

CAUTION
When replacing HVR, be sure to check the HOLD DOWN check point voltage value. Refer to the Safety Adjustment Section of the Service Manual.

CAUTION
Be sure to connect the connector C-1 for safety.

HVR (HIGH VOLTAGE RESISTOR ASSY)

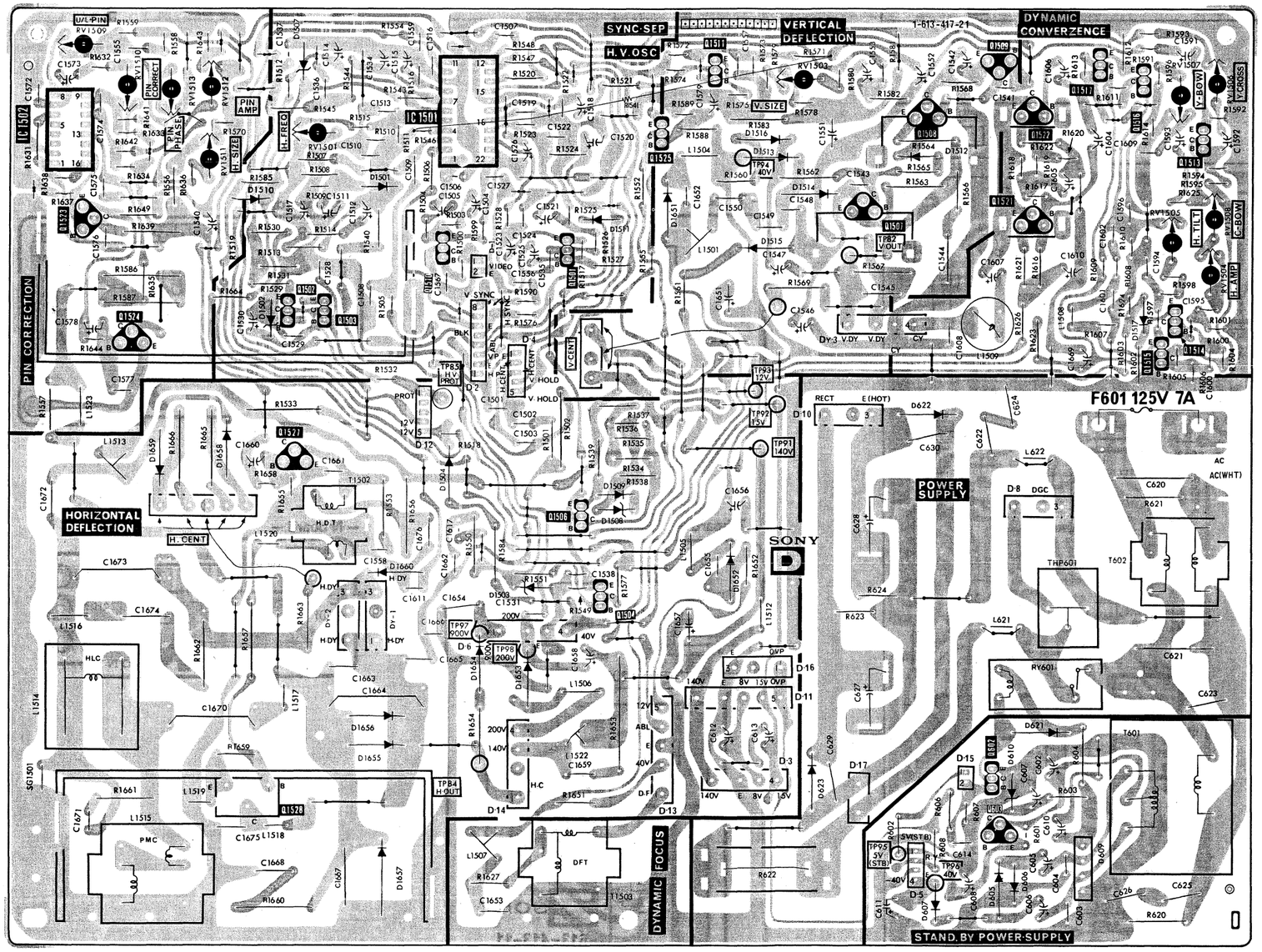
C (R·G·B OUT, VM)

P (FBT)

DY

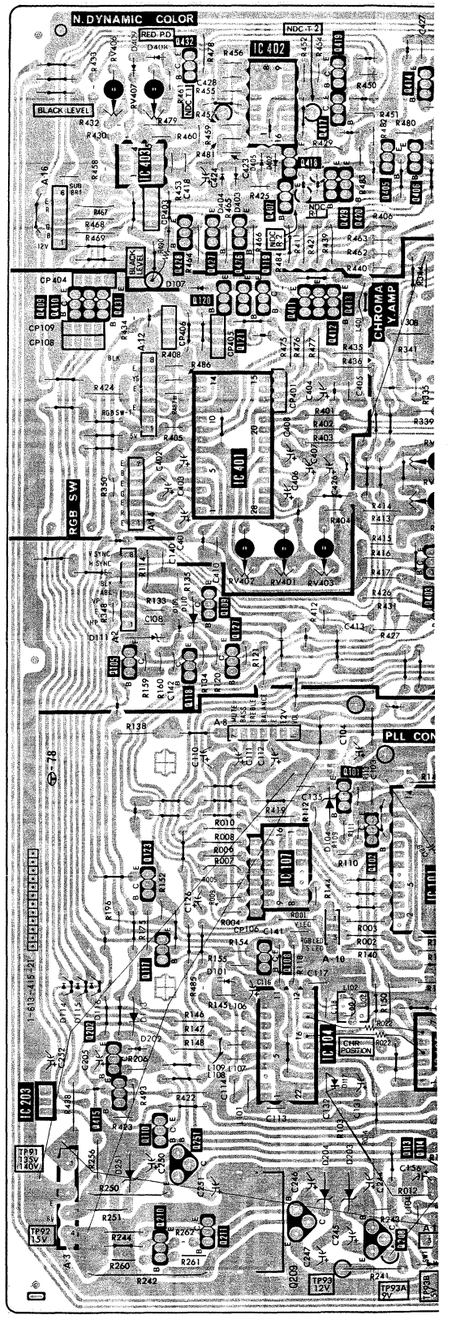
— D board —

IC	IC1502 IC1501
Q	1523 1524 1528 1502 1503 1527 1510 1501 1506 1504 1525 1511 1507 1508 1509 1522 1521 602 603 1517 1516 1515 1514 1513
D	1659 1658 1510 1502 1507 1501 1660 1656 1655 1657 1504 1654 1653 1503 1511 1509 1508 1651 1652 1515 1516 1513 1514 623 1512 622 607 605 610 606 621 609 1517
ADJ	RV1509 RV1510 RV1513 RV1512 RV1511 RV1501 RV1503 RV1507 RV1505 RV1506 RV1508 RV1504
TP	TP85



— 55 —

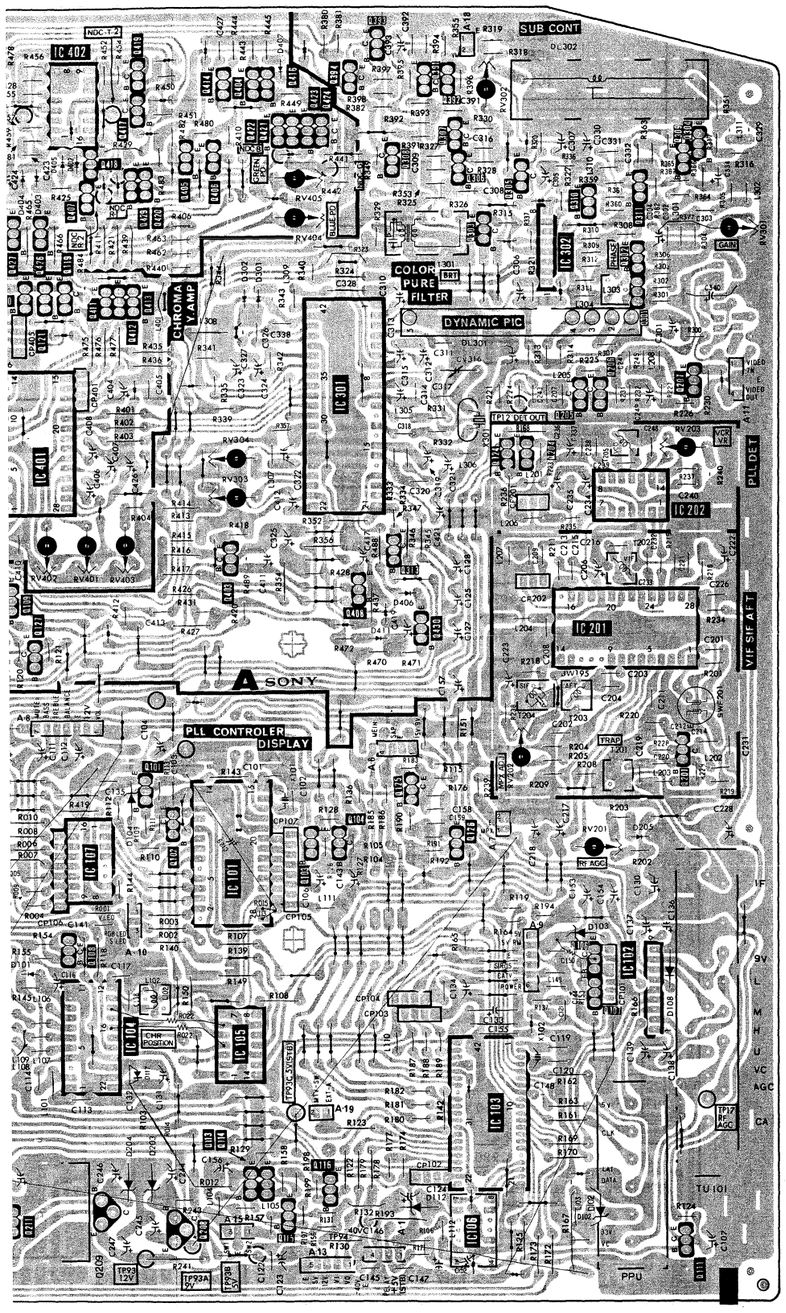
— A board —



— 56 —

KV-25XBR
RM-724/APM-X3U

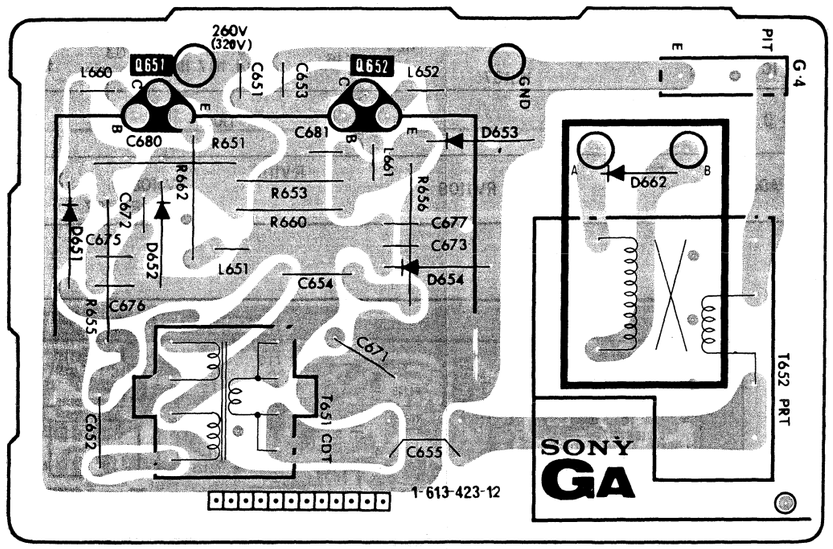
15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31



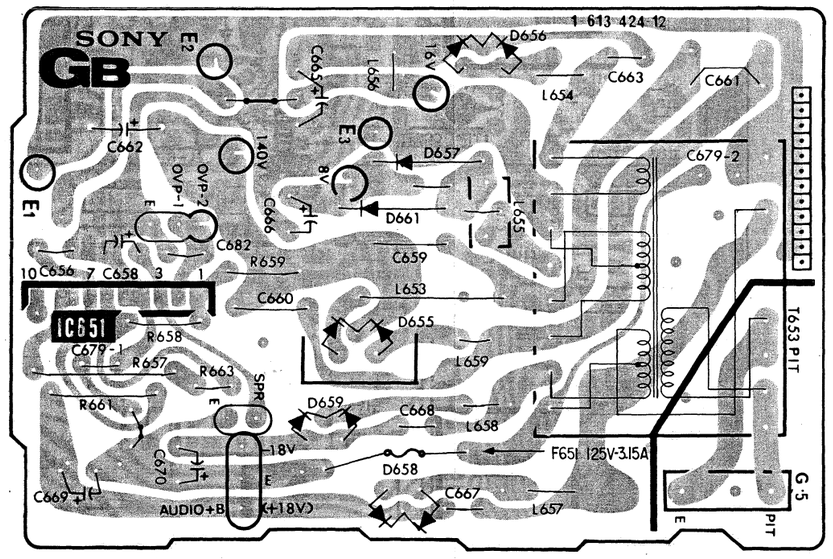
Q · IC	D	ADJ	TP
393			
432	408		
419	394 409		
414,404,416	407		
417 391,392			
IC402		RV302	
421-424		RV407	
IC403 307	304		
418	309		
405,406		RV405	
429,420 306		RV404	
407,308,305	405,402		
311	404,403		
310			
303			
428-426		RV301	
IC302			
302			
301			
411,412,413			
409,410,431			
207			
205,206			
IC301			12
IC 401		RV304	
124,204		RV303	
IC202			
		RV402	
		RV401	
403,313		RV403	
109			
408	406		
IC201	110		
430	109		
	111 411		
105 127			
118			
		RV202	
201			
101 125			
102	104		
103/104			
126	205	RV201	
IC107			
IC101			
123			
108	103		
106			
IC102	101 108		
107			
	113		
IC104,IC105	202		
202			
415	117		
IC203			17
IC103			93C
110			
251			91
	251		
	204,203		
113/114			92
209 116	112		94
115	102		93A
208 IC106			93B
111			

Q · IC | D | ADJ | TP

— GA board —



— GB board —



X [MTS DECODER AUDIO CONTROL AUDIO OUT] U [VIDEO SW, AUDIO SW, MTV SW RGB 34PIN, VIDEO–1,3, AUDIO–1,3, MONITOR V, MONITOR A, V·HOLD, H·CENT] T1 [LED, DISPLAY] T2 [POWER CONTROL] T4 [CONNECTOR] XA [SAP MUTE] Z [PHONE JACK TV OUT VIDEO 2 IN]

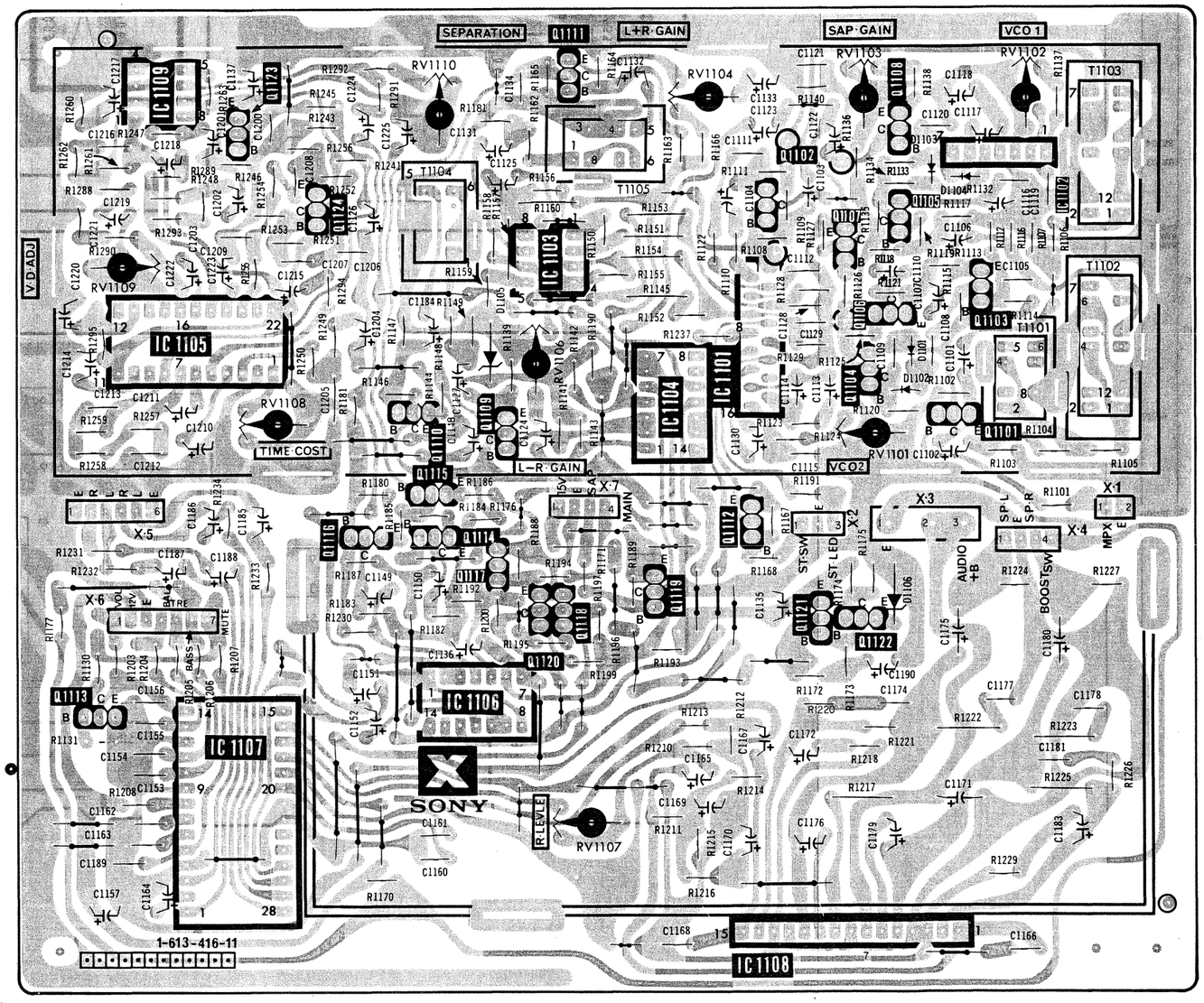
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

– X board –

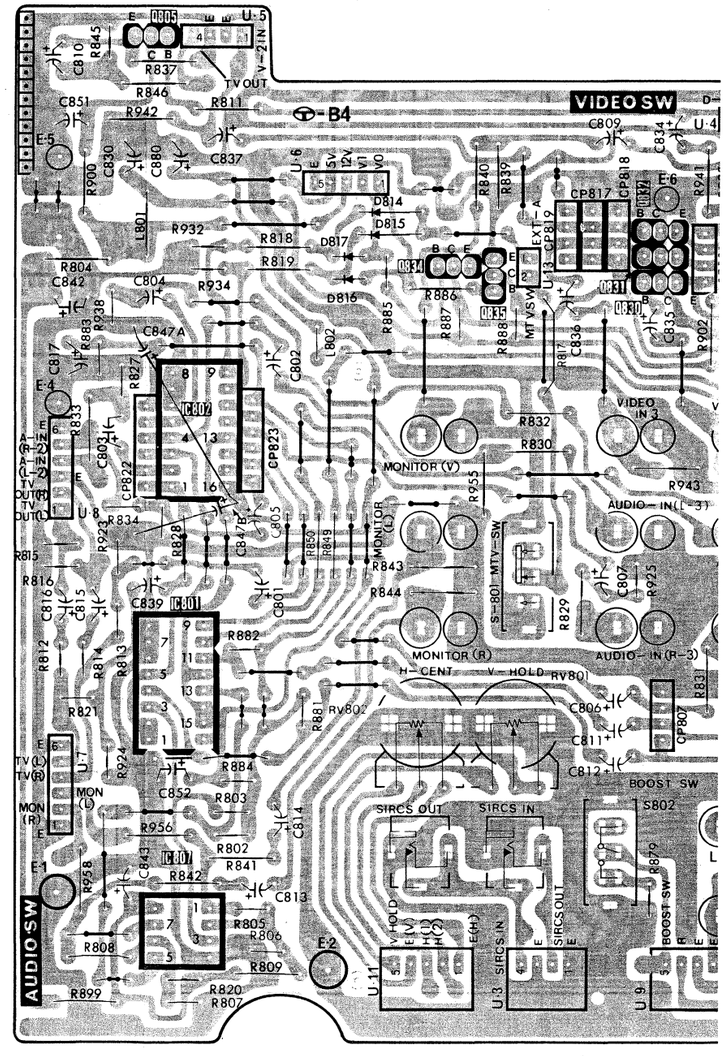
Q IC	1113 IC1109 IC1105 1123 IC1107 1124 1116 1110 1115 1114 1117 1109 IC1106 1111 IC1103 1120 1118 IC1104 1119 1102 IC1101 1112 IC1108 1107 1108 1104 1106 1105 1121 1122 IC1102 1103 1101
D	1105 1103 1104 1102 1101 1106
ADJ	RV1109 RV1108 RV1110 RV1106 RV1107 RV1104 RV1103 RV1101 RV1102

– U board –

Q IC	805 IC802 IC801 IC807 834 835 832 831 830
D	814 817 815 816
ADJ	RV802 RV801



I-594-979-II



PHONE JACK TV OUT
VIDEO 2 IN

N

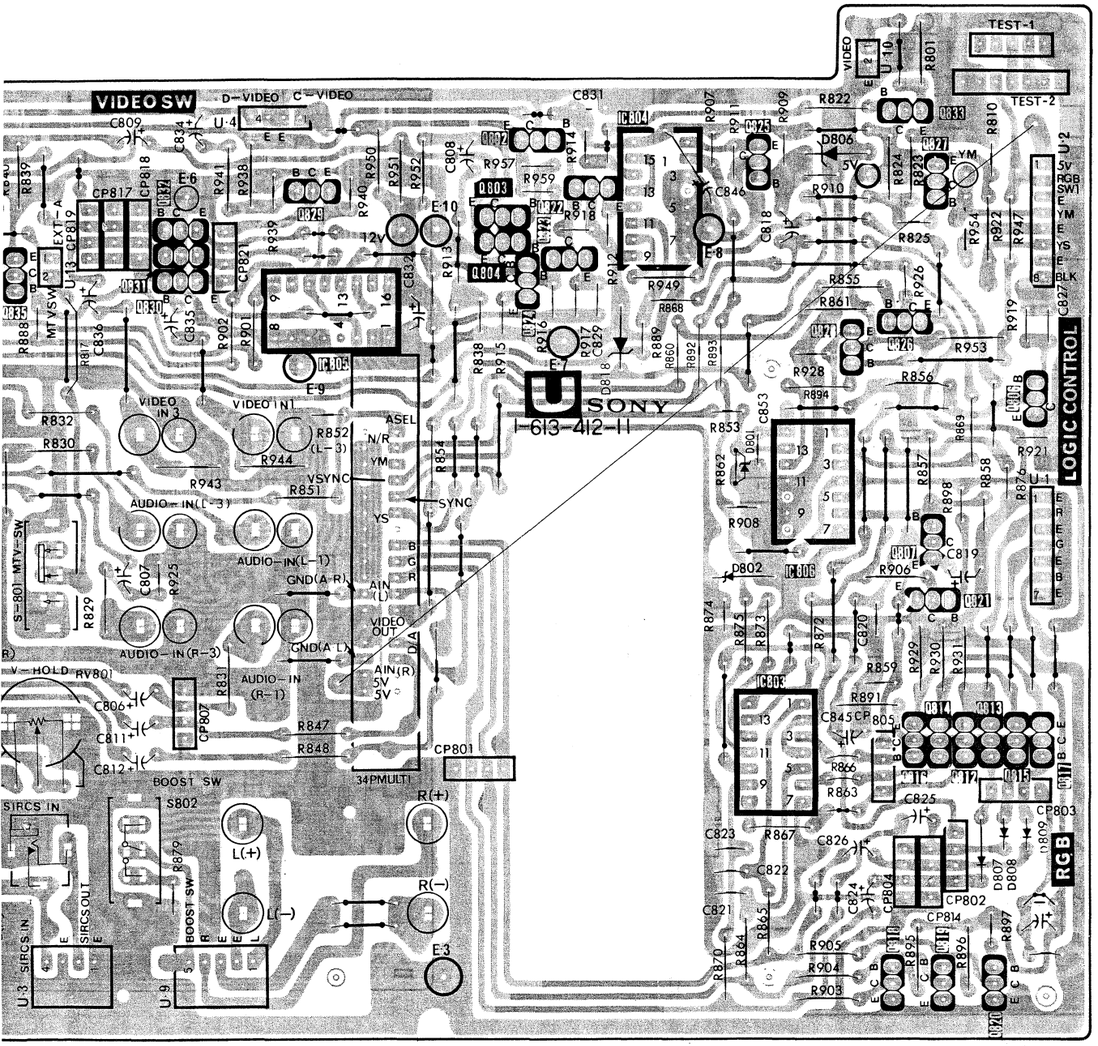
REMOTE CONTROL
HEAD AMP

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

835 832 831 830 829 IC805 802 803 804 824 823 822 IC804 825 828 IC806 IC803 833 827 826 807 821 806 816 814 812 813 815 817 818 819 820

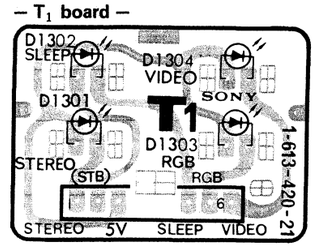
818 806 802 807 808 809

2 RV801

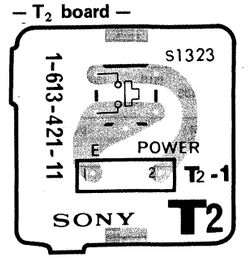


— 61 —

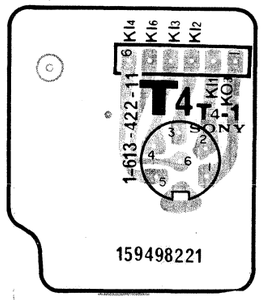
— T_1 board —



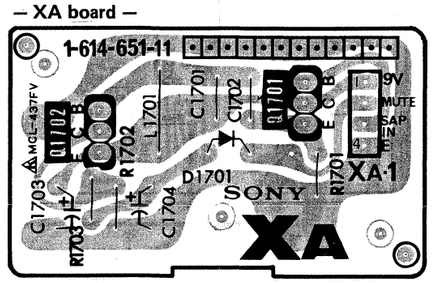
— T_2 board —



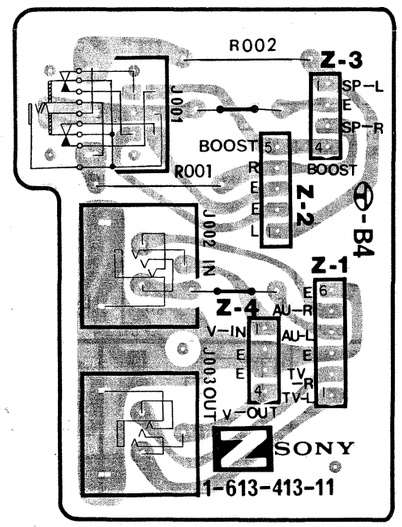
— T_4 board —



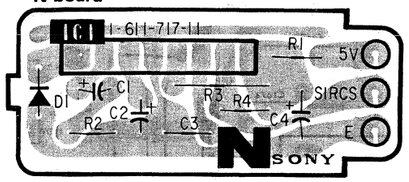
— XA board —



— Z board —



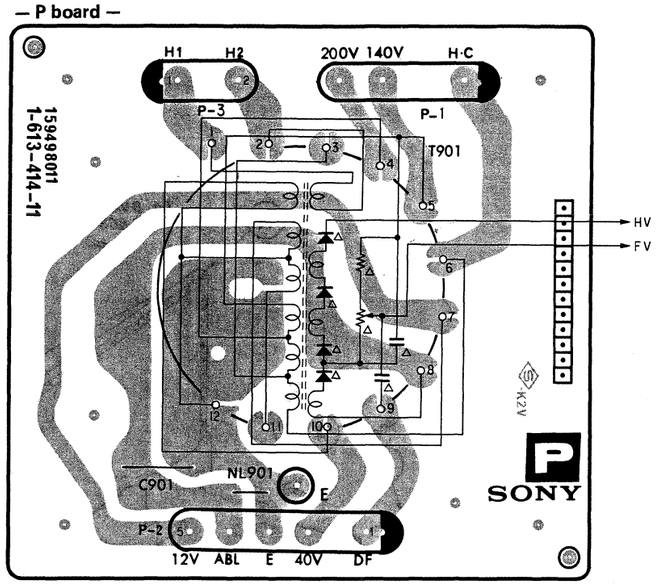
— N board —



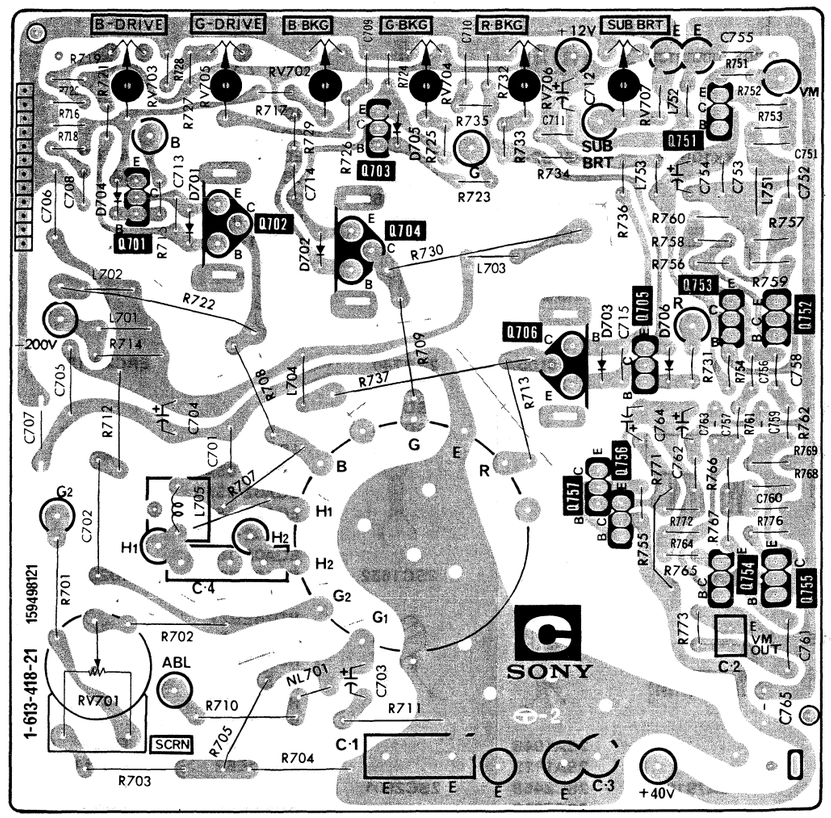
— 62 —

P [FBT] M [CUSTOMER CONTROL] C [R·G·B OUT, VM]

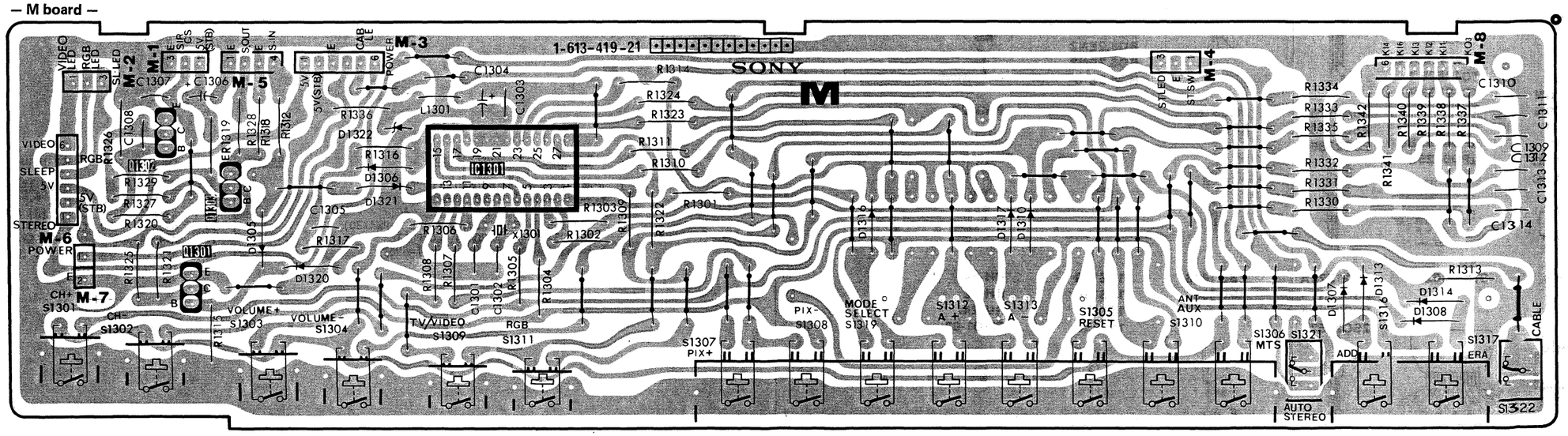
— P board —



— C board —

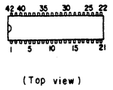


— M board —

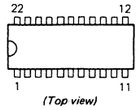


5-5. SEMICONDUCTORS

AN6291
CX530-507N
CX-848



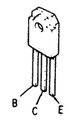
CX-7958
μPC1377C



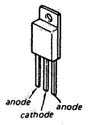
TA7133P

2SA733
2SC1363

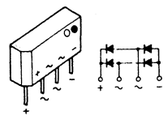
2SD1497



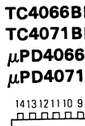
CTL-12S
CTU-24S



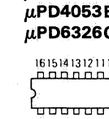
S1VB10-S
S1VB20



AN78L05
NJM78L05A



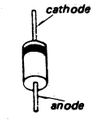
CXK1001P



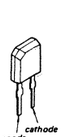
TL4558P-B
μPC4558C

2SB734
2SC2958
2SC2959
2SD774

10E2
EQA02-12B5
EQA02-32A
ES1F
GP08D
HZT33-02
RGP01-17



EM-1ZS
RM2CS

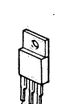


SR632D

DM-21

μPC78L05A

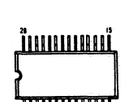
2SB740
2SC1475
2SD788
2SD789

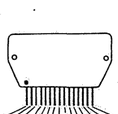


ERC26-15S

SY432D

CX10026

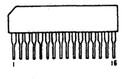




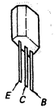
1S1555
EQA02-05A5
EQA02-05F5
EQA02-06A5
EQA02-06D5
EQA02-10B5
RD10EN3
RD13EN2
RD24EBZ7
RD33EB2
RD33EB3
RD3.6E-N1
RD3.6E-N2
RD3.9EN2
RD4.7EN2
RD5.6EB2
RD5.6EBZ7S
RD5.6EL2
RD5.6EN1
RD5.6EN2
RD5.6EN3
RD6.2EN1
RD6.2EN2
RD6.2EN3
RD6.2E-B

CX20014A
CX20100
CX20125
CX526-025

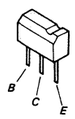
LA3375



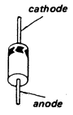
2SA1026



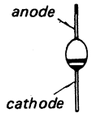
2SC1652



ERD29-08J

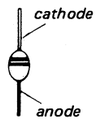


V19E



2SA1048
2SA1115
2SC2458
2SC2603
2SC2669

GH3F
GU-3A
U05E
U05G
V11N



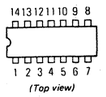
CX20106

LA7910

2SC2901

MC14053BCP
TC4052BP
TC4053BP
TDA1082
μPD4052BC
μPD4053BC
μPD6326C

CX20139
SN74LS05N
SN74LS09N
TC4066BP
TC4071BP
μPD4066BC
μPD4071BC



2SA1175
2SC2785
2SC2785F

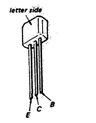
2SC3163
2SC3317

PH302B

CX23040

STK-4362

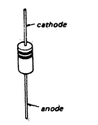
2SA1220A
2SC2611
2SC2690A
2SC2752



2SD1406
2SD880

1SS119
1SS120
1SS133
1SS148

RH-1A
RH-1Z
RU-2M
SIB01-02



SECTION 6
EXPLODED VIEWS

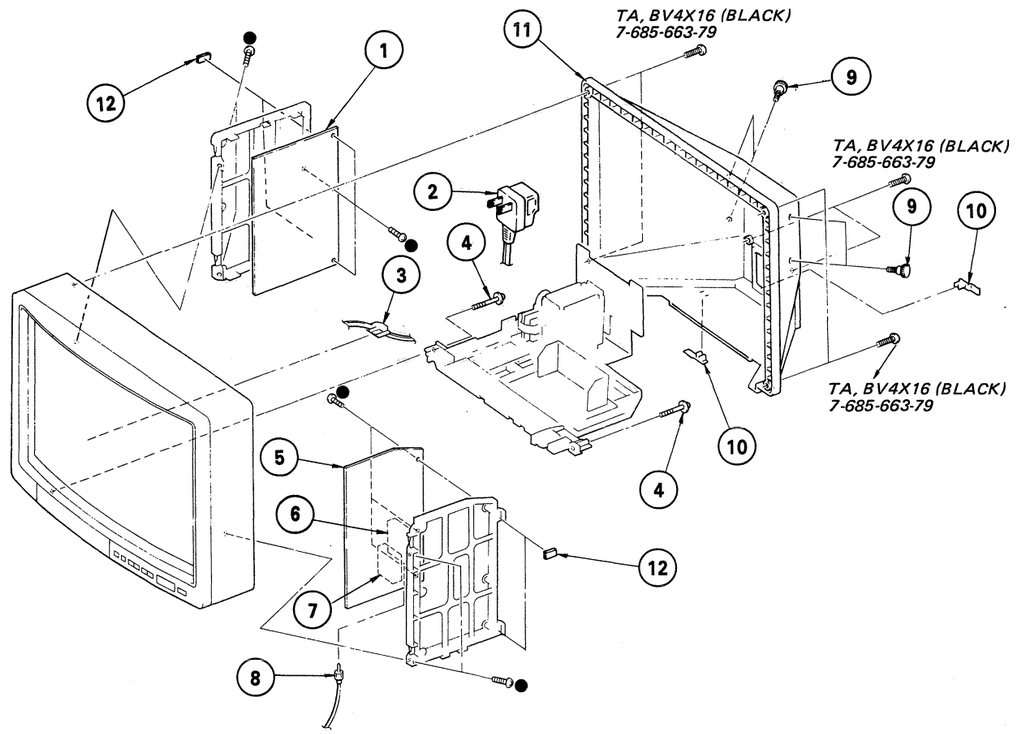
NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

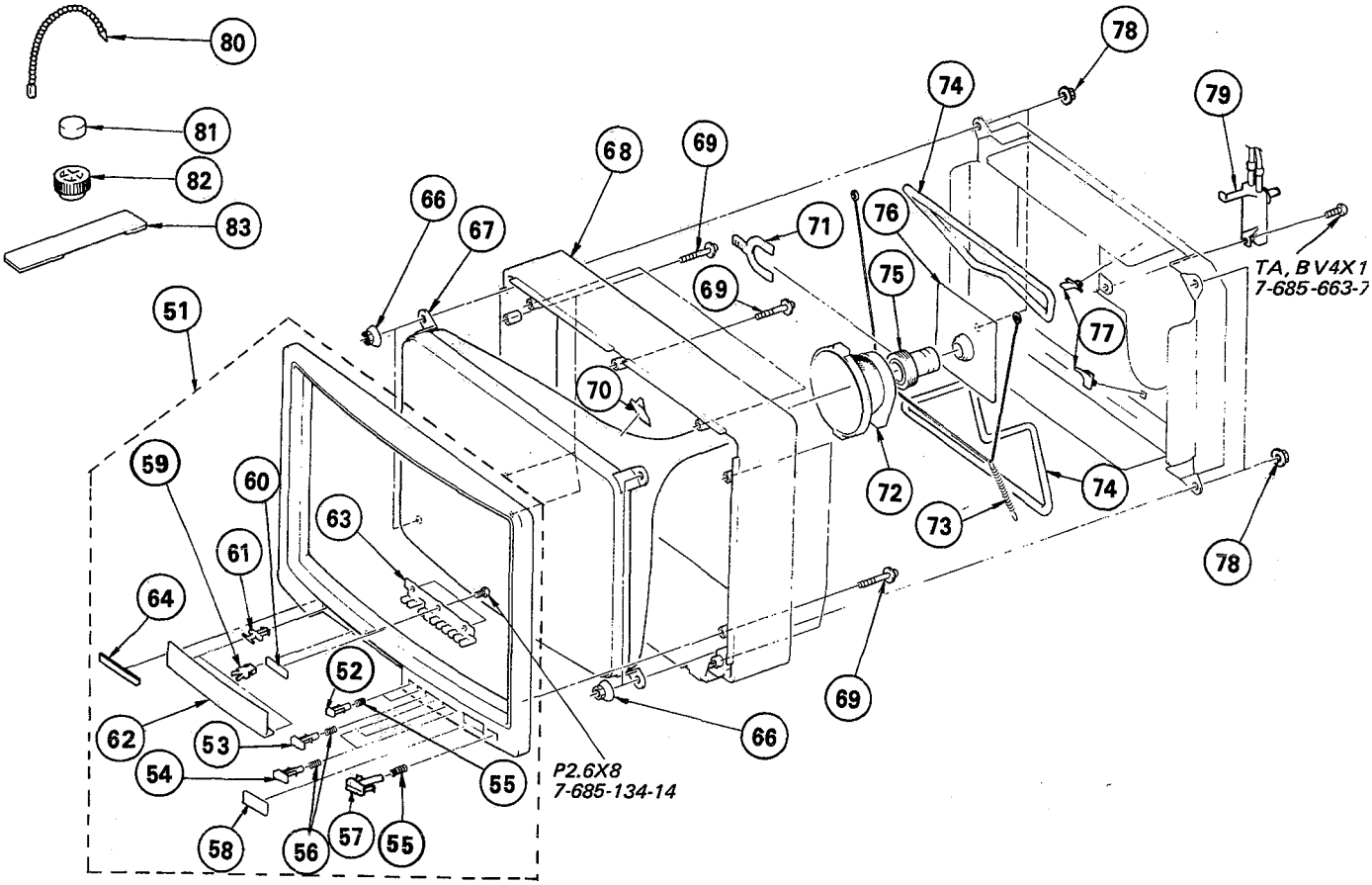
6-1. BACK COVER

● : *TA, BV3X12 7-685-648-71*



No.	Part No.	Description	Remark
1	*A-1345-483-A	D BOARD, COMPLETE	
2	⚠1-557-761-11	CORD, POWER	
3	⚠*4-374-307-01	HOLDER, CORD, AC	
4	4-319-520-00	SCREW, SPECIAL (+PW4X30)	
5	*A-1295-916-A	A BOARD, COMPLETE	
6	⚠1-463-470-00	TUNER, ET (BT-896)	
7	⚠1-463-471-32	SYNTHESIZER UNIT, FREQUENCY	
8	*1-557-056-00	CABLE, P-P	
9	X-4374-104-1	SCREW (B) ASSY, ORNAMENTAL	
10	4-329-127-00	CLAMP, CORD	
11	X-4374-303-1	COVER ASSY, BACK	9,10
12	9-911-830-XX	CUSHION, (C)	

6-2. CRT



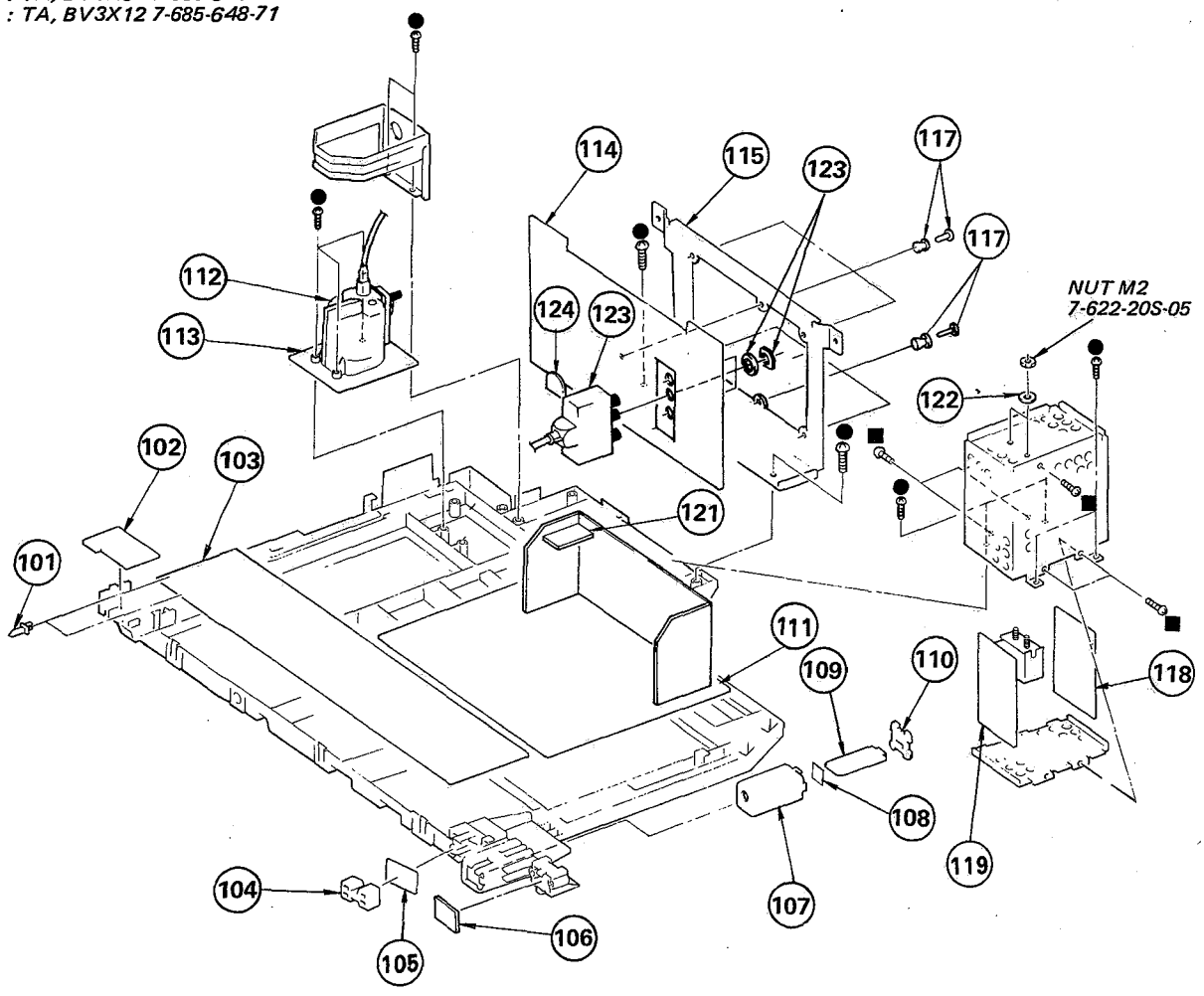
No.	Part No.	Description	Remark
51	X-4374-304-1	BEZEL ASSY	52-64
52	X-4374-101-1	BUTTON (A) ASSY	
53	X-4374-102-1	BUTTON (B) ASSY	
54	X-4374-103-1	BUTTON (C) ASSY	
55	3-571-847-00	SPRING, COMPRESSION	
56	3-561-888-02	SPRING, COMPRESSION	
57	X-4374-301-1	BUTTON ASSY, POWER	
58	*4-374-135-21	PLATE, TRANSPARENT	
59	4-352-034-00	CATCHER, PUSH	
60	4-374-115-01	EMBLEM, SONY	
61	3-662-365-00	SHAFT (S), DOOR	
62	4-374-127-21	DOOR, CONTROL	
63	4-374-151-01	BUTTON, MULTI	
64	*4-374-302-01	PLATE, ORNAMENTAL	
66	4-330-305-00	NUT, SPECIAL	
67	⚠8-736-651-05	CRT (A64JKJ10X)	
68	X-4374-302-1	CABINET ASSY (FOR PLUM)	
	X-4374-302-2	CABINET ASSY (FOR BEIGE)	

No.	Part No.	Description	Remark
69	4-319-520-00	SCREW, SPECIAL (+PW4X30)	
70	3-703-003-00	SPACER, DY	
71	1-452-146-21	MAGNET, BMC	
72	⚠1-451-255-11	DEFLECTION YOKE (SY-164)	
73	4-303-774-XX	SPRING	
74	⚠1-426-059-31	COIL, DEGAUSSING	
75	⚠1-452-315-21	CRT NECK ASSY (NA303)	
76	*A-1330-557-A	C BOARD, COMPLETE	
77	*4-371-629-01	STOPPER, WIRE	
78	4-306-034-00	FLANGE NUT, (B) 5MM	
79	⚠1-230-212-11	RESISTOR ASSY, HIGH-VOLTAGE	
80	4-308-870-00	CLIP, LEAD WIRE	
81	1-452-032-00	MAGNET, DISK; 10MM ϕ	
82	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
83	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

6-3. CHASSIS

■ : TA, BV3X8 7-685-646-71
● : TA, BV3X12 7-685-648-71



No.	Part No.	Description	Remark
101	4-374-146-01	BUTTON, SWITCH	
102	*1-613-413-11	Z BOARD	
103	*1-613-419-21	M BOARD	
104	*4-374-112-01	CAP, LED	
105	*1-613-420-21	T1 BOARD	
106	*1-613-421-11	T2 BOARD	
107	*4-342-117-00	CASE, SHIELD (MAIN), R	
108	*4-333-624-00	FILM (N), SPECIAL	
109	*1-611-717-11	N BOARD	
110	*4-342-118-00	LID, SHIELD CASE, R	
111	*A-1386-014-A	X BOARD, COMPLETE	

No.	Part No.	Description	Remark
112	⚠1-439-339-12	TRANSFORMER ASSY, FLYBACK	
113	*1-613-414-11	P BOARD	
114	*A-1381-024-A	U BOARD, COMPLETE	
115	*4-374-310-01	HOLDER, TERMINAL BOARD	
117	4-374-303-01	RIVET, NYLON	
118	*1-613-424-11	GB BOARD	
119	*1-613-423-11	GA BOARD	
121	*1-614-651-11	XA BOARD	
122	3-845-490-00	WASHER	
123	⚠1-417-125-11	SELECTOR, ANTENNA	
124	*1-613-422-11	T4 BOARD	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS
- MF : μF, PF : μμF

RESISTORS
- All resistors are in ohms
- F : nonflammable

COILS
- MMH : mH, UH : μH

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description			Remark
	*1-613-420-21	T1 BOARD ********			
	*4-345-701-00	HOLDER, LED			
		DIODE			
D1301	8-719-106-34	DIODE SR632D			
D1302	8-719-106-34	DIODE SR632D			
D1303	8-719-114-34	DIODE SY432D			
D1304	8-719-114-34	DIODE SY432D			
**********					
	*1-613-421-11	T2 BOARD ********			
		SWITCH			
S1323 ⚠	1-554-303-11	SWITCH, KEY BOARD			
**********					
	*1-613-414-11	P BOARD *******			
		CAPACITOR			
C901	1-108-431-00	MYLAR	0.068MF	10% 200V	
		NEON LAMP			
NL901	1-519-237-11	LAMP, NEON			
**********					
	*1-613-422-11	T4 BOARD ********			
	1-562-684-11	SOCKET, DIN 6P			
**********					
	*1-613-423-11	GA BOARD ********			
	4-374-104-01	HOLDER, TR			
	4-374-108-01	SPACER, MICA			
		CAPACITOR			
C651	1-102-038-00	CERAMIC	0.001MF		500V
C652	1-136-103-00	FILM	0.1MF	5%	200V
C653	1-102-038-00	CERAMIC	0.001MF		500V
C654	1-136-103-00	FILM	0.1MF	5%	200V
C655	1-136-131-00	FILM	0.12MF	5%	400V
C672	1-102-038-00	CERAMIC	0.001MF		500V
C673	1-102-038-00	CERAMIC	0.001MF		500V
C675	1-102-038-00	CERAMIC	0.001MF		500V
C677	1-102-038-00	CERAMIC	0.001MF		500V
C680	1-102-030-00	CERAMIC	330PF	10%	500V

Ref.No.	Part No.	Description			Remark
C681	1-102-030-00	CERAMIC	330PF	10% 500V	
		DIODE			
D651	8-719-301-18	DIODE RM2CS			
D652	8-719-901-93	DIODE V19E			
D653	8-719-301-18	DIODE RM2CS			
D654	8-719-901-93	DIODE V19E			
		CONNECTOR			
G4	*1-508-765-00	3P PLUG (M)			
		COIL			
L651	1-425-612-00	COIL, ARE-CORE			
L652	1-425-612-00	COIL, ARE-CORE			
L660	1-425-612-00	COIL, ARE-CORE			
L661	1-425-612-00	COIL, ARE-CORE			
		TRANSISTOR			
Q651	8-729-902-00	TRANSISTOR 2SC3163			
Q652	8-729-902-00	TRANSISTOR 2SC3163			
		RESISTOR			
R651 ⚠	1-214-597-61	METAL OXIDE	100K	5% 2W	F
R653	1-202-637-00	SOLID	470K	5% 1/2W	
R655 ⚠	1-206-439-61	METAL OXIDE	1	5% 2W	F
R656	1-206-439-00	METAL OXIDE	1	5% 2W	F
R660	1-202-637-00	SOLID	470K	5% 1/2W	
R662	1-207-451-00	WIREWOUND	0.1	10% 1/2W	
		TRANSFORMER			
T651 ⚠	1-421-695-11	CDT			
T652 ⚠	1-421-710-11	PRT			
**********					
	*1-613-424-11	GB BOARD ********			
F651 ⚠	1-532-595-11	FUSE, GLASS TUBE 125V 3.15A			
	*1-533-146-00	HOLDER, FUSE			
		CAPACITOR			
C656	1-106-196-00	MYLAR	0.01MF	10%	100V
C658	1-123-356-00	ELECT	10MF	20%	50V
C659	1-129-710-00	FILM	0.0047MF	10%	630V
C660	1-129-710-00	FILM	0.0047MF	10%	630V
C661	1-136-240-11	FILM	0.014MF	5%	1KV
C662	1-125-294-00	ELECT(BLOCK)	560MF	20%	160V
C663	1-102-038-00	CERAMIC	0.001MF		500V
C664	1-102-038-00	CERAMIC	0.001MF		500V
C665	1-123-338-00	ELECT	2200MF	20%	25V
C666	1-123-324-00	ELECT	1000MF	20%	16V
C667	1-102-038-00	CERAMIC	0.001MF		500V

GB N A

Ref.No.	Part No.	Description			Remark
C669	1-123-363-00	ELECT	470MF	20%	50V
		DIODE			
D655	8-719-300-09	DIODE CTU-24S			
	*4-347-706-00	HEAT SINK (TR), D655			
D656	8-719-301-09	DIODE CTL-12S			
D657	8-719-302-00	DIODE RU-2M			
D658	8-719-301-09	DIODE CTL-12S			
D661	8-719-302-00	DIODE RU-2M			
		CONNECTOR			
G5	*1-508-765-00	3P PLUG (M)			
		MODULE			
IC651	⚠1-235-445-11	MODULE, POWER (DM-21)			
		COIL			
L653	1-407-780-00	COIL, SPOOK CHOKE			
L654	1-407-365-00	COIL, CHOKE			
L655	1-407-690-00	MICRO INDUCTOR 5.6UH			
L656	1-459-406-00	COIL (WITH CORE)			
L657	1-407-365-00	COIL, CHOKE			
L659	1-407-780-00	COIL, SPOOK CHOKE			
		RESISTOR			
R657	⚠1-215-969-51	METAL	18K	1W	
R658	⚠1-211-427-11	CARBON	100	5% 1/8W	F
R659	1-247-807-00	CARBON	100	5% 1/8W	F
R661	⚠1-202-657-15	SOLID	3.3M	5% 1/2W	
R663	⚠1-215-968-21	METAL	15K	1W	
		TRANSFORMER			
T653	⚠1-421-703-12	PIT			

****

*1-611-717-11 N BOARD
****

		CAPACITOR			
C1	1-123-611-00	ELECT	1MF	20%	50V
C2	1-123-613-00	ELECT	3.3MF	20%	50V
C3	1-102-820-00	CERAMIC	330PF	5%	50V
C4	1-123-821-00	ELECT	47MF	20%	16V
		DIODE			
D1	8-719-110-32	DIODE PH302B			
		IC			
IC1	8-752-010-60	IC CX20106			

Ref.No.	Part No.	Description			Remark
		RESISTOR			
R1	1-247-799-00	CARBON	47	5% 1/6W	
R2	1-247-775-00	CARBON	4.7	5% 1/6W	
R3	1-214-784-00	METAL	200K	1% 1/4W	
R4	1-247-863-00	CARBON	22K	5% 1/6W	

****

*A-1295-916-A A BOARD, COMPLETE
****

⚠1-463-471-32 SYNTHESIZER UNIT, FREQUENCY
*1-551-382-00 CABLE P-P

		CONNECTOR			
A1	*1-564-440-11	PLUG, CONNECTOR (2.5MM)	4P		
A2	*1-564-444-11	PLUG, CONNECTOR (2.5MM)	8P		
A3	*1-508-766-00	4P PLUG (M)			
A6	*1-564-440-11	PLUG, CONNECTOR (2.5MM)	4P		
A7	*1-564-353-00	PLUG, CONNECTOR (2.5MM)	2P		
A8	*1-564-443-11	PLUG, CONNECTOR (2.5MM)	7P		
A9	*1-564-442-11	PLUG, CONNECTOR (2.5MM)	6P		
A10	*1-564-354-21	PLUG, CONNECTOR (2.5MM)	3P		
A11	*1-564-440-11	PLUG, CONNECTOR (2.5MM)	4P		
A12	*1-564-444-11	PLUG, CONNECTOR (2.5MM)	8P		
A13	*1-564-441-11	PLUG, CONNECTOR (2.5MM)	5P		
A14	*1-564-443-11	PLUG, CONNECTOR (2.5MM)	7P		
A15	*1-564-354-00	PLUG, CONNECTOR (2.5MM)	3P		
A16	*1-564-442-11	PLUG, CONNECTOR (2.5MM)	6P		
A18	*1-564-353-00	PLUG, CONNECTOR (2.5MM)	2P		
A19	*1-564-353-00	PLUG, CONNECTOR (2.5MM)	2P		
		CAPACITOR			
C101	1-101-888-00	CERAMIC	68PF	5%	50V
C102	1-101-888-00	CERAMIC	68PF	5%	50V
C103	1-102-074-00	CERAMIC	0.001MF	10%	50V
C104	1-123-447-00	ELECT	0.22MF	20%	50V
C106	1-123-380-00	ELECT	1MF	20%	50V
C107	1-123-318-00	ELECT	33MF	20%	16V
C108	1-101-001-00	CERAMIC	0.001MF		50V
C110	1-123-381-00	ELECT	2.2MF	20%	50V
C111	1-123-381-00	ELECT	2.2MF	20%	50V
C112	1-123-381-00	ELECT	2.2MF	20%	50V
C113	1-102-976-00	CERAMIC	180PF	5%	50V
C114	1-102-976-00	CERAMIC	180PF	5%	50V
C116	1-123-369-00	ELECT	4.7MF	20%	25V
C117	1-101-880-00	CERAMIC	47PF	5%	50V
C118	1-101-884-00	CERAMIC	56PF	5%	50V
C119	1-102-976-00	CERAMIC	180PF	5%	50V
C120	1-102-976-00	CERAMIC	180PF	5%	50V
C121	1-101-003-00	CERAMIC	0.0047MF		50V
C122	1-101-004-00	CERAMIC	0.01MF		50V
C123	1-123-356-00	ELECT	10MF	20%	16V

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description			Remark
C124	1-123-356-00	ELECT	10MF	20%	50V
C125	1-123-380-00	ELECT	1MF	20%	50V
C126	1-123-380-00	ELECT	1MF	20%	50V
C127	1-123-380-00	ELECT	1MF	20%	50V
C128	1-123-380-00	ELECT	1MF	20%	50V
C129	1-119-129-00	ELECT	100MF		16V
C130	1-123-324-00	ELECT	1000MF	20%	16V
C131	1-123-318-00	ELECT	33MF	20%	16V
C132	1-101-003-00	CERAMIC	0.0047MF		50V
C133	1-101-003-00	CERAMIC	0.0047MF		50V
C134	1-123-333-00	ELECT	100MF	20%	16V
C135	1-101-003-00	CERAMIC	0.0047MF		50V
C137	1-123-356-00	ELECT	10MF	20%	16V
C138	1-123-356-00	ELECT	10MF	20%	16V
C139	1-123-356-00	ELECT	10MF	20%	16V
C140	1-101-001-00	CERAMIC	0.001MF		50V
C141	1-101-002-00	CERAMIC	0.0022MF		50V
C142	1-106-190-00	MYLAR	0.0056MF	10%	100V
C143	1-123-309-00	ELECT	330MF	20%	10V
C144	1-101-004-00	CERAMIC	0.01MF		50V
C145	1-101-004-00	CERAMIC	0.01MF		50V
C146	1-101-004-00	CERAMIC	0.01MF		50V
C147	1-101-001-00	CERAMIC	0.001MF		50V
C149	1-101-004-00	CERAMIC	0.01MF		50V
C150	1-101-004-00	CERAMIC	0.01MF		50V
C151	1-119-135-00	ELECT	220MF		16V
C152	1-123-356-00	ELECT	10MF	20%	16V
C153	1-123-333-00	ELECT	100MF	20%	16V
C154	1-123-356-00	ELECT	10MF	20%	16V
C155	1-161-323-00	CERAMIC	0.001MF	10%	50V
C156	1-123-356-00	ELECT	10MF	20%	16V
C157	1-123-380-00	ELECT	1MF	20%	50V
C158	1-106-180-00	MYLAR	0.0022MF	10%	100V
C159	1-102-824-00	CERAMIC	470PF	5%	50V
C201	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C202	1-102-128-00	CERAMIC	0.0082MF	10%	50V
C203	1-102-851-00	CERAMIC	15PF	5%	50V
C204	1-102-525-00	CERAMIC	68PF	5%	50V
C205	1-123-318-00	ELECT	33MF	20%	16V
C206	1-123-318-00	ELECT	33MF	20%	16V
C207	1-101-884-00	CERAMIC	56PF	5%	50V
C208	1-161-059-00	CERAMIC	0.047MF	10%	25V
C209	1-102-824-00	CERAMIC	470PF	5%	50V
C211	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C212	1-101-004-00	CERAMIC	0.01MF		50V
C213	1-161-059-00	CERAMIC	0.047MF	10%	25V
C214	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C215	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C216	1-102-525-00	CERAMIC	68PF	5%	50V
C217	1-123-586-00	ELECT	0.1MF	20%	50V
C218	1-123-586-00	ELECT	0.1MF	20%	50V
C219	1-102-634-11	CERAMIC	8PF	0.5PF	50V
C220	1-102-637-00	CERAMIC	12PF	5%	50V

Ref.No.	Part No.	Description			Remark
C221	1-161-013-00	CERAMIC	0.01MF	10%	25V
C222	1-123-379-00	ELECT	0.47MF	20%	50V
C223	1-123-356-00	ELECT	10MF	20%	16V
C226	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C228	1-123-330-00	ELECT	22MF	20%	16V
C231	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C232	1-102-959-00	CERAMIC	22PF	5%	50V
C233	1-102-959-00	CERAMIC	22PF	5%	50V
C234	1-123-379-00	ELECT	0.47MF	20%	50V
C235	1-123-379-00	ELECT	0.47MF	20%	50V
C236	1-123-318-00	ELECT	33MF	20%	16V
C237	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C238	1-123-381-00	ELECT	2.2MF	20%	50V
C239	1-102-752-61	CERAMIC	30PF	5%	50V
C240	1-121-257-00	ELECT	4.7MF		16V
C241	1-102-973-00	CERAMIC	100PF	5%	50V
C243	1-102-816-00	CERAMIC	120PF	5%	50V
C244	1-123-318-00	ELECT	33MF	20%	16V
C245	1-123-333-00	ELECT	100MF	20%	16V
C246	1-123-318-00	ELECT	33MF	20%	16V
C247	1-123-333-00	ELECT	100MF	20%	16V
C248	1-102-074-00	CERAMIC	0.001MF	10%	50V
C249	1-123-380-00	ELECT	1MF	20%	50V
C250	1-123-318-00	ELECT	33MF	20%	16V
C251	1-123-333-00	ELECT	100MF	20%	16V
C252	1-123-306-00	ELECT	47MF	20%	6.3V
C301	1-123-356-00	ELECT	10MF	20%	16V
C302	1-102-962-00	CERAMIC	30PF	5%	50V
C303	1-101-884-00	CERAMIC	56PF	5%	50V
C304	1-123-380-00	ELECT	1MF	20%	50V
C305	1-123-380-00	ELECT	1MF	20%	50V
C306	1-123-356-00	ELECT	10MF	20%	25V
C307	1-123-369-00	ELECT	4.7MF	20%	25V
C308	1-102-129-00	CERAMIC	0.01MF	10%	50V
C309	1-102-973-00	CERAMIC	100PF	5%	50V
C310	1-123-330-00	ELECT	22MF	20%	16V
C311	1-161-047-00	CERAMIC	0.0047MF	10%	50V
C312	1-123-447-00	ELECT	0.22MF	20%	50V
C313	1-123-447-00	ELECT	0.22MF	20%	50V
C314	1-101-004-00	CERAMIC	0.01MF		50V
C315	1-123-356-00	ELECT	10MF	20%	16V
C316	1-101-888-00	CERAMIC	68PF	5%	50V
C317	1-102-865-00	CERAMIC	8PF	0.5PF	50V
C318	1-102-074-00	CERAMIC	0.001MF	10%	50V
C319	1-123-379-00	ELECT	0.47MF	20%	50V
C320	1-121-806-00	ELECT	10MF		16V
C321	1-123-379-00	ELECT	0.47MF	20%	50V
C322	1-123-286-00	ELECT	0.33MF	20%	50V
C323	1-123-379-00	ELECT	0.47MF	20%	50V
C324	1-123-357-00	ELECT	22MF	20%	50V
C325	1-123-380-00	ELECT	1MF	20%	50V
C326	1-102-953-00	CERAMIC	18PF	5%	50V
C328	1-161-265-00	CERAMIC	33PF	5%	50V

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Ref.No.	Part No.	Description			Remark
C330	1-123-333-00	ELECT	100MF	20%	16V
C331	1-101-888-00	CERAMIC	68PF	5%	50V
C332	1-102-965-00	CERAMIC	39PF	5%	50V
C333	1-123-323-00	ELECT	470MF	20%	16V
C334	1-123-380-00	ELECT	1MF	20%	50V
C338	1-101-884-00	CERAMIC	56PF	5%	50V
C391	1-106-196-00	MYLAR	0.01MF	10%	100V
C392	1-102-971-00	CERAMIC	82PF	5%	50V
C393	1-123-356-00	ELECT	10MF	20%	16V
C401	1-123-356-00	ELECT	10MF	20%	16V
C402	1-123-356-00	ELECT	10MF	20%	16V
C403	1-123-356-00	ELECT	10MF	20%	16V
C404	1-123-330-00	ELECT	22MF	20%	16V
C405	1-101-003-00	CERAMIC	0.0047MF		50V
C406	1-123-379-00	ELECT	0.47MF	20%	50V
C407	1-123-379-00	ELECT	0.47MF	20%	50V
C408	1-123-379-00	ELECT	0.47MF	20%	50V
C410	1-101-004-00	CERAMIC	0.01MF		50V
C411	1-123-356-00	ELECT	10MF	20%	50V
C412	1-123-369-00	ELECT	4.7MF	20%	50V
C413	1-106-184-00	MYLAR	0.0033MF	10%	100V
C417	1-123-379-00	ELECT	0.47MF	20%	50V
C418	1-101-003-00	CERAMIC	0.0047MF		50V
C419	1-123-332-00	ELECT	47MF	20%	16V
C421	1-123-380-00	ELECT	1MF	20%	50V
C423	1-102-820-00	CERAMIC	330PF	5%	50V
C424	1-123-356-00	ELECT	10MF	20%	16V
C426	1-123-356-00	ELECT	10MF	20%	16V
C427	1-101-001-00	CERAMIC	0.001MF		50V
C428	1-101-884-00	CERAMIC	56PF	5%	50V

FILTER

CF201	1-409-332-00	CERAMIC TRAP (4.5MHZ)
CF202	1-527-943-00	FILTER, CERAMIC

TRIMMER

CV316	1-141-147-XX	CAP, TRIMMER

DIODE

D101	8-719-911-19	DIODE 1SS119
D102	8-759-300-42	IC HZT33-02
D103	8-719-102-60	DIODE RD3.9E-N2
D104	8-719-102-60	DIODE RD3.9E-N2
D108	8-719-911-19	DIODE 1SS119
D109	8-719-911-19	DIODE 1SS119
D110	8-719-911-19	DIODE 1SS119
D111	8-719-102-65	DIODE RD4.7E-N2
D112	8-719-101-04	DIODE RD33E-B2
D113	8-719-911-19	DIODE 1SS119
D117	8-719-102-70	DIODE RD5.6E-N1
D202	8-719-911-19	DIODE 1SS119
D203	8-719-102-91	DIODE RD10E-N3
D204	8-719-103-06	DIODE RD13E-N2
D205	8-719-911-19	DIODE 1SS119
D251	8-719-102-71	DIODE RD5.6E-N2
D402	8-719-911-19	DIODE 1SS119
D403	8-719-911-19	DIODE 1SS119
D404	8-719-911-19	DIODE 1SS119
D405	8-719-911-19	DIODE 1SS119
D406	8-719-911-19	DIODE 1SS119
D407	8-719-911-19	DIODE 1SS119
D408	8-719-911-19	DIODE 1SS119
D409	8-719-911-19	DIODE 1SS119
D411	8-719-911-19	DIODE 1SS119

DELAY LINE

DL301	1-415-356-11	DELAY LINE, 1H
DL302	1-415-388-11	DELAY LINE, Y

IC

IC101	8-759-103-07	IC CX526-025
IC102	8-759-800-65	IC LA7910
IC103	8-759-912-82	IC CX530-507N
IC104	8-759-909-50	IC CX7958
IC105	8-759-140-71	IC UPD4071BC
IC106	8-752-320-11	IC CXK1001P
IC107	8-759-102-28	IC UPD6326C
IC201	8-752-001-41	IC CX20014A
IC202	8-752-013-90	IC CX20139
IC203	8-759-108-05	IC UPC78L05A
IC301	8-758-480-00	IC CX848
IC302	8-759-913-11	IC CX20125
IC401	8-752-010-00	IC CX20100
IC402	8-759-040-53	IC MC14053BCP
IC403	8-759-145-58	IC UPC4558C

COIL

L101	1-407-717-00	MICRO INDUCTOR 1MMH
L102	1-404-538-11	COIL
L103	1-408-398-00	MICRO INDUCTOR 1.2UH
L104	1-408-403-00	MICRO INDUCTOR 3.3UH
L105	1-408-403-00	MICRO INDUCTOR 3.3UH
L107	1-410-016-11	MICRO INDUCTOR 3.9UH
L108	1-410-016-11	MICRO INDUCTOR 3.9UH
L109	1-410-016-11	MICRO INDUCTOR 3.9UH
L110	1-408-462-11	MICRO INDUCTOR 470UH
L111	1-408-450-11	MICRO INDUCTOR 47UH
L112	1-408-454-00	MICRO INDUCTOR 100UH
L201	1-408-408-00	MICRO INDUCTOR 8.2UH
L202	1-408-709-00	MICRO INDUCTOR 0.68UH
L203	1-410-073-11	MICRO INDUCTOR 0.22UH
L204	1-408-408-00	MICRO INDUCTOR 8.2UH
L205	1-408-445-11	MICRO INDUCTOR 18UH
L206	1-408-411-00	MICRO INDUCTOR 15UH
L207	1-408-402-00	MICRO INDUCTOR 2.7UH
L208	1-408-409-00	MICRO INDUCTOR 10UH

Ref.No.	Part No.	Description	Remark
L301	1-408-450-11	MICRO INDUCTOR 47UH	
L302	1-408-416-00	MICRO INDUCTOR 39UH	
L303	1-404-540-11	COIL	
L304	1-408-411-00	MICRO INDUCTOR 15UH	
L305	1-408-398-00	MICRO INDUCTOR 1.2UH	
L306	1-408-398-00	MICRO INDUCTOR 1.2UH	
L307	1-408-398-00	MICRO INDUCTOR 1.2UH	
L308	1-408-163-00	MICRO INDUCTOR 5.6MMH	
L309	1-408-456-11	MICRO INDUCTOR 150UH	
L310	1-408-409-00	MICRO INDUCTOR 10UH	
		TRANSISTOR	
Q101	8-729-204-83	TRANSISTOR 2SA1048GR	
Q102	8-729-245-83	TRANSISTOR 2SC2458	
Q103	8-729-245-83	TRANSISTOR 2SC2458	
Q104	8-729-204-83	TRANSISTOR 2SA1048GR	
Q105	8-729-245-83	TRANSISTOR 2SC2458	
Q106	8-729-245-83	TRANSISTOR 2SC2458	
Q107	8-729-204-83	TRANSISTOR 2SA1048GR	
Q108	8-729-245-83	TRANSISTOR 2SC2458	
Q109	8-729-245-83	TRANSISTOR 2SC2458	
Q110	8-729-245-83	TRANSISTOR 2SC2458	
Q111	8-729-245-83	TRANSISTOR 2SC2458	
Q113	8-729-204-83	TRANSISTOR 2SA1048GR	
Q114	8-729-204-83	TRANSISTOR 2SA1048GR	
Q115	8-729-204-83	TRANSISTOR 2SA1048GR	
Q116	8-729-245-83	TRANSISTOR 2SC2458	
Q118	8-729-245-83	TRANSISTOR 2SC2458	
Q123	8-729-245-83	TRANSISTOR 2SC2458	
Q124	8-729-245-83	TRANSISTOR 2SC2458	
Q125	8-729-204-83	TRANSISTOR 2SA1048GR	
Q126	8-729-245-83	TRANSISTOR 2SC2458	
Q127	8-729-245-83	TRANSISTOR 2SC2458	
Q201	8-729-266-93	TRANSISTOR 2SC2669	
Q202	8-729-204-83	TRANSISTOR 2SA1048GR	
Q204	8-729-245-83	TRANSISTOR 2SC2458	
Q205	8-729-204-83	TRANSISTOR 2SA1048GR	
Q206	8-729-245-83	TRANSISTOR 2SC2458	
Q207	8-729-245-83	TRANSISTOR 2SC2458	
Q208	8-729-288-02	TRANSISTOR 2SD880	
Q209	8-729-201-78	TRANSISTOR 2SD1406	
Q251	8-729-288-02	TRANSISTOR 2SD880	
Q301	8-729-245-83	TRANSISTOR 2SC2458	
Q302	8-729-245-83	TRANSISTOR 2SC2458	
Q303	8-729-245-83	TRANSISTOR 2SC2458	
Q304	8-729-245-83	TRANSISTOR 2SC2458	
Q305	8-729-245-83	TRANSISTOR 2SC2458	
Q306	8-729-245-83	TRANSISTOR 2SC2458	
Q307	8-729-245-83	TRANSISTOR 2SC2458	
Q308	8-729-245-83	TRANSISTOR 2SC2458	
Q309	8-729-245-83	TRANSISTOR 2SC2458	
Q310	8-729-245-83	TRANSISTOR 2SC2458	
Q311	8-729-245-83	TRANSISTOR 2SC2458	
Q313	8-729-204-83	TRANSISTOR 2SA1048GR	
Q391	8-729-245-83	TRANSISTOR 2SC2458	
Q392	8-729-245-83	TRANSISTOR 2SC2458	
Q393	8-729-245-83	TRANSISTOR 2SC2458	
Q394	8-729-245-83	TRANSISTOR 2SC2458	
Q403	8-729-204-83	TRANSISTOR 2SA1048GR	
Q404	8-729-204-83	TRANSISTOR 2SA1048GR	
Q405	8-729-204-83	TRANSISTOR 2SA1048GR	
Q406	8-729-204-83	TRANSISTOR 2SA1048GR	
Q407	8-729-204-83	TRANSISTOR 2SA1048GR	
Q408	8-729-245-83	TRANSISTOR 2SC2458	
Q409	8-729-245-83	TRANSISTOR 2SC2458	
Q410	8-729-245-83	TRANSISTOR 2SC2458	
Q411	8-729-204-83	TRANSISTOR 2SA1048GR	
Q412	8-729-204-83	TRANSISTOR 2SA1048GR	
Q413	8-729-204-83	TRANSISTOR 2SA1048GR	
Q414	8-729-204-83	TRANSISTOR 2SA1048GR	
Q415	8-729-245-83	TRANSISTOR 2SC2458	
Q416	8-729-204-83	TRANSISTOR 2SA1048GR	
Q417	8-729-245-83	TRANSISTOR 2SC2458	
Q418	8-729-245-83	TRANSISTOR 2SC2458	
Q419	8-729-245-83	TRANSISTOR 2SC2458	
Q420	8-729-204-83	TRANSISTOR 2SA1048GR	
Q421	8-729-204-83	TRANSISTOR 2SA1048GR	
Q422	8-729-204-83	TRANSISTOR 2SA1048GR	
Q423	8-729-204-83	TRANSISTOR 2SA1048GR	
Q424	8-729-204-83	TRANSISTOR 2SA1048GR	
Q426	8-729-245-83	TRANSISTOR 2SC2458	
Q427	8-729-245-83	TRANSISTOR 2SC2458	
Q428	8-729-245-83	TRANSISTOR 2SC2458	
Q429	8-729-204-83	TRANSISTOR 2SA1048GR	
Q430	8-729-204-83	TRANSISTOR 2SA1048GR	
Q431	8-729-245-83	TRANSISTOR 2SC2458	
Q432	8-729-204-83	TRANSISTOR 2SA1048GR	
		RESISTOR	
R001	1-247-127-00	CARBON 680 5% 1/4W	
R002	1-247-117-00	CARBON 270 5% 1/4W	
R003	1-247-117-00	CARBON 270 5% 1/4W	
R004	1-247-843-00	CARBON 3.3K 5% 1/6W	
R005	1-247-843-00	CARBON 3.3K 5% 1/6W	
R006	1-247-163-00	CARBON 22K 5% 1/4W	
R007	1-246-485-25	CARBON 3.3K 5% 1/4W	
R008	1-246-485-25	CARBON 3.3K 5% 1/4W	
R009	1-247-843-00	CARBON 3.3K 5% 1/6W	
R010	1-246-485-25	CARBON 3.3K 5% 1/4W	
R012	1-247-115-00	CARBON 220 5% 1/4W	
R014	1-247-135-00	CARBON 1.5K 5% 1/4W	
R015	1-247-847-00	CARBON 4.7K 5% 1/6W	
R016	1-247-155-00	CARBON 10K 5% 1/4W	

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Ref.No.	Part No.	Description				Remark
R106	1-247-847-00	CARBON	4.7K	5%	1/6W	
R107	1-247-139-00	CARBON	2.2K	5%	1/4W	
R108	1-247-139-00	CARBON	2.2K	5%	1/4W	
R109	1-247-855-00	CARBON	10K	5%	1/6W	
R110	1-247-855-00	CARBON	10K	5%	1/6W	
R111	1-247-823-00	CARBON	470	5%	1/6W	
R112	1-247-885-00	CARBON	180K	5%	1/6W	
R113	1-247-855-00	CARBON	10K	5%	1/6W	
R114	1-247-139-00	CARBON	2.2K	5%	1/4W	
R115	1-247-819-00	CARBON	330	5%	1/6W	
R118	1-247-131-00	CARBON	1K	5%	1/4W	
R119	1-247-831-00	CARBON	1K	5%	1/6W	
R120	1-247-871-00	CARBON	47K	5%	1/6W	
R121	1-247-871-00	CARBON	47K	5%	1/6W	
R122	1-247-163-00	CARBON	22K	5%	1/4W	
R123	1-247-139-00	CARBON	2.2K	5%	1/4W	
R124	1-247-849-00	CARBON	5.6K	5%	1/6W	
R125	1-247-167-00	CARBON	33K	5%	1/4W	
R126	1-247-851-00	CARBON	6.8K	5%	1/6W	
R127	1-247-835-00	CARBON	1.5K	5%	1/6W	
R128	1-247-857-00	CARBON	12K	5%	1/6W	
R129	1-247-855-00	CARBON	10K	5%	1/6W	
R130	1-247-167-00	CARBON	33K	5%	1/4W	
R131	1-247-887-00	CARBON	220K	5%	1/6W	
R132	1-247-153-00	CARBON	8.2K	5%	1/4W	
R133	1-247-873-00	CARBON	56K	5%	1/6W	
R134	1-247-895-00	CARBON	470K	5%	1/6W	
R135	1-247-895-00	CARBON	470K	5%	1/6W	
R136	1-247-889-00	CARBON	270K	5%	1/6W	
R137	1-247-839-00	CARBON	2.2K	5%	1/6W	
R138	1-247-131-00	CARBON	1K	5%	1/4W	
R139	1-247-139-00	CARBON	2.2K	5%	1/4W	
R140	1-247-139-00	CARBON	2.2K	5%	1/4W	
R142	1-247-107-00	CARBON	100	5%	1/4W	
R143	1-247-139-00	CARBON	2.2K	5%	1/4W	
R144	1-247-855-00	CARBON	10K	5%	1/6W	
R145	1-247-879-00	CARBON	100K	5%	1/6W	
R146	1-247-123-00	CARBON	470	5%	1/4W	
R147	1-247-123-00	CARBON	470	5%	1/4W	
R148	1-247-123-00	CARBON	470	5%	1/4W	
R149	1-246-485-25	CARBON	3.3K	5%	1/4W	
R150	1-246-485-25	CARBON	3.3K	5%	1/4W	
R151	1-247-115-00	CARBON	220	5%	1/4W	
R152	1-247-871-00	CARBON	47K	5%	1/6W	
R153	1-247-855-00	CARBON	10K	5%	1/6W	
R154	1-247-871-00	CARBON	47K	5%	1/6W	
R155	1-247-871-00	CARBON	47K	5%	1/6W	
R156	1-247-887-00	CARBON	220K	5%	1/6W	
R157	1-247-863-00	CARBON	22K	5%	1/6W	
R158	1-247-871-00	CARBON	47K	5%	1/6W	
R159	1-247-889-00	CARBON	270K	5%	1/6W	
R160	1-247-879-00	CARBON	100K	5%	1/6W	
R161	1-247-131-00	CARBON	1K	5%	1/4W	

Ref.No.	Part No.	Description				Remark
R162	1-247-131-00	CARBON	1K	5%	1/4W	
R163	1-247-131-00	CARBON	1K	5%	1/4W	
R164	1-247-839-00	CARBON	2.2K	5%	1/6W	
R165	1-247-839-00	CARBON	2.2K	5%	1/6W	
R166	1-247-077-00	CARBON	3.3	5%	1/4W	
R167	1-206-696-00	METAL OXIDE	22K	5%	2W	F
R168	1-247-139-00	CARBON	2.2K	5%	1/4W	
R169	1-247-155-00	CARBON	10K	5%	1/4W	
R170	1-247-155-00	CARBON	10K	5%	1/4W	
R171	1-247-831-00	CARBON	1K	5%	1/6W	
R172	1-247-179-00	CARBON	100K	5%	1/4W	
R173	1-247-155-00	CARBON	10K	5%	1/4W	
R173	1-247-179-00	CARBON	100K	5%	1/4W	
R174	1-247-855-00	CARBON	10K	5%	1/6W	
R176	1-247-891-00	CARBON	330K	5%	1/6W	
R177	1-247-855-00	CARBON	10K	5%	1/6W	
R178	1-247-139-00	CARBON	2.2K	5%	1/4W	
R179	1-247-139-00	CARBON	2.2K	5%	1/4W	
R180	1-247-839-00	CARBON	2.2K	5%	1/6W	
R181	1-247-839-00	CARBON	2.2K	5%	1/6W	
R182	1-247-839-00	CARBON	2.2K	5%	1/6W	
R183	1-247-877-00	CARBON	82K	5%	1/6W	
R185	1-247-855-00	CARBON	10K	5%	1/6W	
R186	1-247-855-00	CARBON	10K	5%	1/6W	
R187	1-247-839-00	CARBON	2.2K	5%	1/6W	
R188	1-247-839-00	CARBON	2.2K	5%	1/6W	
R189	1-247-839-00	CARBON	2.2K	5%	1/6W	
R190	1-247-855-00	CARBON	10K	5%	1/6W	
R191	1-247-843-00	CARBON	3.3K	5%	1/6W	
R192	1-247-847-00	CARBON	4.7K	5%	1/6W	
R193	1-244-877-51	CARBON	1.5K	5%	1/2W	
R194	1-247-871-00	CARBON	47K	5%	1/6W	
R196	1-247-871-00	CARBON	47K	5%	1/6W	
R197	1-247-871-00	CARBON	47K	5%	1/6W	
R198	1-247-863-00	CARBON	22K	5%	1/6W	
R199	1-247-855-00	CARBON	10K	5%	1/6W	
R201	1-247-837-00	CARBON	1.8K	5%	1/6W	
R202	1-247-857-00	CARBON	12K	5%	1/6W	
R203	1-247-855-00	CARBON	10K	5%	1/6W	
R204	1-215-457-00	METAL	33K	1%	1/6W	
R205	1-215-457-00	METAL	33K	1%	1/6W	
R206	1-247-863-00	CARBON	22K	5%	1/6W	
R208	1-247-883-00	CARBON	150K	5%	1/6W	
R209	1-247-883-00	CARBON	150K	5%	1/6W	
R211	1-247-831-00	CARBON	1K	5%	1/6W	
R215	1-247-883-00	CARBON	150K	5%	1/6W	
R216	1-247-815-00	CARBON	220	5%	1/6W	
R218	1-247-845-00	CARBON	3.9K	5%	1/6W	
R219	1-247-817-00	CARBON	270	5%	1/6W	
R220	1-247-801-00	CARBON	56	5%	1/6W	
R221	1-247-822-00	CARBON	430	5%	1/6W	
R223	1-247-821-00	CARBON	390	5%	1/6W	
R224	1-247-830-00	CARBON	910	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R225	1-247-827-00	CARBON	680	5%	1/6W	
R226	1-247-807-00	CARBON	100	5%	1/6W	
R227	1-247-827-00	CARBON	680	5%	1/6W	
R228	1-247-833-00	CARBON	1.2K	5%	1/6W	
R229	1-247-803-00	CARBON	68	5%	1/6W	
R230	1-247-843-00	CARBON	3.3K	5%	1/6W	
R231	1-247-846-00	CARBON	4.3K	5%	1/6W	
R232	1-247-851-00	CARBON	6.8K	5%	1/6W	
R234	1-247-839-00	CARBON	2.2K	5%	1/6W	
R235	1-247-819-00	CARBON	330	5%	1/6W	
R236	1-247-107-00	CARBON	100	5%	1/4W	
R237	1-247-795-00	CARBON	33	5%	1/6W	
R238	1-247-847-00	CARBON	4.7K	5%	1/6W	
R239	1-247-819-00	CARBON	330	5%	1/6W	
R241	1-212-367-00	METAL OXIDE	3.9	5%	1W	F
R242	1-206-495-00	METAL OXIDE	2.2	5%	3W	F
R243	1-247-821-00	CARBON	390	5%	1/6W	
R244	1-247-115-00	CARBON	220	5%	1/4W	
R245	1-247-831-00	CARBON	1K	5%	1/6W	
R250	1-206-453-00	METAL OXIDE	3.9	5%	2W	F
R251	1-247-119-00	CARBON	330	5%	1/4W	
R256	1-247-025-00	CARBON	3.9	5%	1/8W	F
R300	1-247-807-00	CARBON	100	5%	1/6W	
R301	1-247-867-00	CARBON	33K	5%	1/6W	
R302	1-247-865-00	CARBON	27K	5%	1/6W	
R303	1-247-833-00	CARBON	1.2K	5%	1/6W	
R304	1-247-823-00	CARBON	470	5%	1/6W	
R305	1-247-833-00	CARBON	1.2K	5%	1/6W	
R306	1-247-835-00	CARBON	1.5K	5%	1/6W	
R307	1-247-827-00	CARBON	680	5%	1/6W	
R308	1-247-827-00	CARBON	680	5%	1/6W	
R309	1-247-827-00	CARBON	680	5%	1/6W	
R310	1-247-827-00	CARBON	680	5%	1/6W	
R311	1-247-833-00	CARBON	1.2K	5%	1/6W	
R312	1-247-833-00	CARBON	1.2K	5%	1/6W	
R313	1-247-835-00	CARBON	1.5K	5%	1/6W	
R314	1-247-835-00	CARBON	1.5K	5%	1/6W	
R315	1-247-833-00	CARBON	1.2K	5%	1/6W	
R316	1-247-833-00	CARBON	1.2K	5%	1/6W	
R317	1-247-831-00	CARBON	1K	5%	1/6W	
R318	1-247-841-00	CARBON	2.7K	5%	1/6W	
R319	1-247-841-00	CARBON	2.7K	5%	1/6W	
R320	1-247-841-00	CARBON	2.7K	5%	1/6W	
R321	1-247-899-00	CARBON	680K	5%	1/6W	
R322	1-247-865-00	CARBON	27K	5%	1/6W	
R323	1-247-145-00	CARBON	3.9K	5%	1/4W	
R324	1-247-119-00	CARBON	330	5%	1/4W	
R325	1-247-863-00	CARBON	22K	5%	1/6W	
R326	1-247-843-00	CARBON	3.3K	5%	1/6W	
R327	1-247-845-00	CARBON	3.9K	5%	1/6W	
R328	1-247-829-00	CARBON	820	5%	1/6W	
R329	1-247-839-00	CARBON	2.2K	5%	1/6W	
R330	1-247-831-00	CARBON	1K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R331	1-247-807-00	CARBON	100	5%	1/6W	
R332	1-247-821-00	CARBON	390	5%	1/6W	
R333	1-247-863-00	CARBON	22K	5%	1/6W	
R334	1-247-829-00	CARBON	820	5%	1/6W	
R335	1-247-831-00	CARBON	1K	5%	1/6W	
R336	1-247-897-00	CARBON	560K	5%	1/6W	
R337	1-247-895-00	CARBON	470K	5%	1/6W	
R339	1-247-819-00	CARBON	330	5%	1/6W	
R340	1-247-871-00	CARBON	47K	5%	1/6W	
R341	1-247-857-00	CARBON	12K	5%	1/6W	
R342	1-247-855-00	CARBON	10K	5%	1/6W	
R345	1-247-155-00	CARBON	10K	5%	1/4W	
R346	1-247-115-00	CARBON	220	5%	1/4W	
R347	1-247-839-00	CARBON	2.2K	5%	1/6W	
R348	1-247-815-00	CARBON	220	5%	1/6W	
R349	1-247-871-00	CARBON	47K	5%	1/6W	
R350	1-247-815-00	CARBON	220	5%	1/6W	
R351	1-247-829-00	CARBON	820	5%	1/6W	
R352	1-247-155-00	CARBON	10K	5%	1/4W	
R353	1-247-863-00	CARBON	22K	5%	1/6W	
R354	1-246-537-00	CARBON	470K	5%	1/4W	
R355	1-247-815-00	CARBON	220	5%	1/6W	
R356	1-246-517-25	CARBON	68K	5%	1/4W	
R357	1-247-903-00	CARBON	1M	5%	1/6W	
R359	1-247-827-00	CARBON	680	5%	1/6W	
R360	1-247-827-00	CARBON	680	5%	1/6W	
R361	1-247-823-00	CARBON	470	5%	1/6W	
R362	1-247-833-00	CARBON	1.2K	5%	1/6W	
R363	1-247-819-00	CARBON	330	5%	1/6W	
R364	1-247-833-00	CARBON	1.2K	5%	1/6W	
R365	1-247-837-00	CARBON	1.8K	5%	1/6W	
R366	1-247-841-00	CARBON	2.7K	5%	1/6W	
R367	1-247-847-00	CARBON	4.7K	5%	1/6W	
R377	1-247-123-00	CARBON	470	5%	1/4W	
R380	1-247-867-00	CARBON	33K	5%	1/6W	
R381	1-247-867-00	CARBON	33K	5%	1/6W	
R382	1-247-855-00	CARBON	10K	5%	1/6W	
R391	1-247-865-00	CARBON	27K	5%	1/6W	
R393	1-247-815-00	CARBON	220	5%	1/6W	
R394	1-247-819-00	CARBON	330	5%	1/6W	
R395	1-247-835-00	CARBON	1.5K	5%	1/6W	
R396	1-247-831-00	CARBON	1K	5%	1/6W	
R397	1-247-855-00	CARBON	10K	5%	1/6W	
R398	1-247-855-00	CARBON	10K	5%	1/6W	
R401	1-247-115-00	CARBON	220	5%	1/4W	
R402	1-247-115-00	CARBON	220	5%	1/4W	
R403	1-247-115-00	CARBON	220	5%	1/4W	
R404	1-247-849-00	CARBON	5.6K	5%	1/6W	
R405	1-247-839-00	CARBON	2.2K	5%	1/6W	
R406	1-247-833-00	CARBON	1.2K	5%	1/6W	
R408	1-247-839-00	CARBON	2.2K	5%	1/6W	
R410	1-215-406-00	METAL	240	1%	1/6W	
R411	1-214-717-00	METAL	330	1%	1/4W	

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Ref.No.	Part No.	Description				Remark
R412	1-247-831-00	CARBON	1K	5%	1/6W	
R414	1-247-179-00	CARBON	100K	5%	1/4W	
R416	1-246-523-00	CARBON	120K	5%	1/4W	
R417	1-247-163-00	CARBON	22K	5%	1/4W	
R418	1-247-855-00	CARBON	10K	5%	1/6W	
R419	1-247-179-00	CARBON	100K	5%	1/4W	
R420	1-247-847-00	CARBON	4.7K	5%	1/6W	
R421	1-214-717-00	METAL	330	1%	1/4W	
R422	1-247-163-00	CARBON	22K	5%	1/4W	
R423	1-247-871-00	CARBON	47K	5%	1/6W	
R424	1-247-131-00	CARBON	1K	5%	1/4W	
R425	1-247-839-00	CARBON	2.2K	5%	1/6W	
R426	1-247-177-00	CARBON	82K	5%	1/4W	
R427	1-214-753-00	METAL	10K	1%	1/4W	
R428	1-247-885-00	CARBON	180K	5%	1/6W	
R429	1-247-129-00	CARBON	820	5%	1/4W	
R431	1-214-753-00	METAL	10K	1%	1/4W	
R435	1-247-115-00	CARBON	220	5%	1/4W	
R436	1-247-115-00	CARBON	220	5%	1/4W	
R437	1-247-145-00	CARBON	3.9K	5%	1/4W	
R438	1-214-915-00	METAL	120K	1%	1/2W	
R439	1-214-717-00	METAL	330	1%	1/4W	
R440	1-247-843-00	CARBON	3.3K	5%	1/6W	
R441	1-247-843-00	CARBON	3.3K	5%	1/6W	
R442	1-247-843-00	CARBON	3.3K	5%	1/6W	
R443	1-247-834-00	CARBON	1.3K	5%	1/6W	
R444	1-247-827-00	CARBON	680	5%	1/6W	
R445	1-247-833-00	CARBON	1.2K	5%	1/6W	
R449	1-247-855-00	CARBON	10K	5%	1/6W	
R450	1-247-879-00	CARBON	100K	5%	1/6W	
R451	1-247-879-00	CARBON	100K	5%	1/6W	
R452	1-247-879-00	CARBON	100K	5%	1/6W	
R453	1-247-849-00	CARBON	5.6K	5%	1/6W	
R454	1-247-879-00	CARBON	100K	5%	1/6W	
R455	1-215-453-00	METAL	22K	1%	1/6W	
R456	1-215-432-00	METAL	3K	1%	1/6W	
R457	1-215-421-00	METAL	1K	1%	1/6W	
R459	1-247-869-00	CARBON	39K	5%	1/6W	
R460	1-247-855-00	CARBON	10K	5%	1/6W	
R461	1-247-847-00	CARBON	4.7K	5%	1/6W	
R462	1-247-831-00	CARBON	1K	5%	1/6W	
R463	1-247-831-00	CARBON	1K	5%	1/6W	
R464	1-247-107-00	CARBON	100	5%	1/4W	
R465	1-247-107-00	CARBON	100	5%	1/4W	
R466	1-247-107-00	CARBON	100	5%	1/4W	
R467	1-247-103-00	CARBON	68	5%	1/4W	
R468	1-247-103-00	CARBON	68	5%	1/4W	
R469	1-247-103-00	CARBON	68	5%	1/4W	
R470	1-247-899-00	CARBON	680K	5%	1/6W	
R471	1-247-855-00	CARBON	10K	5%	1/6W	
R472	1-247-891-00	CARBON	330K	5%	1/6W	
R475	1-247-131-00	CARBON	1K	5%	1/4W	
R476	1-247-131-00	CARBON	1K	5%	1/4W	

Ref.No.	Part No.	Description				Remark
R477	1-247-131-00	CARBON	1K	5%	1/4W	
R478	1-247-131-00	CARBON	1K	5%	1/4W	
R479	1-247-147-00	CARBON	4.7K	5%	1/4W	
R480	1-215-406-00	METAL	240	1%	1/6W	
R481	1-247-805-00	CARBON	82	5%	1/6W	
R482	1-247-843-00	CARBON	3.3K	5%	1/6W	
R483	1-247-843-00	CARBON	3.3K	5%	1/6W	
R486	1-247-815-00	CARBON	220	5%	1/6W	
R487B	1-247-804-00	CARBON	75	5%	1/6W	
R488	1-247-139-00	CARBON	2.2K	5%	1/4W	
R490	1-247-863-00	CARBON	22K	5%	1/6W	
R493	1-247-863-00	CARBON	22K	5%	1/6W	
		VARIABLE RESISTOR				
RV201	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K			
RV202	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K			
RV301	1-228-720-00	RES, ADJ, CERAMIC CARBON	1K			
RV302	1-228-719-00	RES, ADJ, CERAMIC CARBON	470			
RV303	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K			
RV304	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K			
RV401	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K			
RV402	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K			
RV403	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K			
RV404	1-228-719-00	RES, ADJ, CERAMIC CARBON	470			
RV405	1-228-719-00	RES, ADJ, CERAMIC CARBON	470			
RV407	1-228-722-00	RES, ADJ, CERAMIC CARBON	3.3K			
		FILTER				
SWF201	1-404-227-51	SAWF 45MHZ				
		TRANSFORMER				
T201	1-404-541-11	COIL				
T202	1-404-467-00	COIL, VIF				
T203	1-404-467-00	COIL, VIF				
T204	1-404-505-00	COIL				
T205	1-404-489-00	COIL				
T301	1-425-786-00	TRANSFORMER, BANDPASS(BPT)				
		TUNER				
TU101⚠	1-463-470-00	TUNER, ET (BT-896)				
		CRYSTAL				
X101	1-567-192-11	OSCILLATOR, CERAMIC				
X102	1-567-254-11	OSCILLATOR, CERAMIC				
X301	1-527-722-00	OSCILLATOR, CRYSTAL				

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description			Remark
	*1-613-419-21	M BOARD *******			
		CAPACITOR			
C1301	1-102-978-00	CERAMIC	220PF	5%	50V
C1302	1-102-978-00	CERAMIC	220PF	5%	50V
C1303	1-101-004-00	CERAMIC	0.01MF		50V
C1304	1-123-318-00	ELECT	33MF	20%	16V
C1305	1-106-196-00	MYLAR	0.01MF	10%	100V
C1306	1-123-333-00	ELECT	100MF	20%	16V
C1307	1-102-822-00	CERAMIC	390PF	5%	50V
C1308	1-101-888-00	CERAMIC	68PF	5%	50V
C1309	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1310	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1311	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1312	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1313	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1314	1-102-074-00	CERAMIC	0.001MF	10%	50V
		DIODE			
D1305	8-719-911-19	DIODE 1SS119			
D1306	8-719-911-19	DIODE 1SS119			
D1307	8-719-911-19	DIODE 1SS119			
D1308	8-719-911-19	DIODE 1SS119			
D1310	8-719-911-19	DIODE 1SS119			
D1313	8-719-911-19	DIODE 1SS119			
D1314	8-719-911-19	DIODE 1SS119			
D1316	8-719-911-19	DIODE 1SS119			
D1317	8-719-911-19	DIODE 1SS119			
D1320	8-719-911-19	DIODE 1SS119			
D1321	8-719-911-19	DIODE 1SS119			
D1322	8-719-102-58	DIODE RD3.6E-N2			
		IC			
IC1301	8-759-909-49	IC CX23040			
		COIL			
L1301	1-407-705-00	MICRO INDUCTOR 100UH			
		CONNECTOR			
M1	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P			
M2	*1-564-354-21	PLUG, CONNECTOR (2.5MM) 3P			
M3	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P			
M5	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P			
M8	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P			
		TRANSISTOR			
Q1301	8-729-245-83	TRANSISTOR 2SC2458			
Q1302	8-729-245-83	TRANSISTOR 2SC2458			
Q1303	8-729-245-83	TRANSISTOR 2SC2458			

Ref.No.	Part No.	Description			Remark
		RESISTOR			
R1301	1-247-139-00	CARBON	2.2K	5%	1/4W
R1302	1-247-139-00	CARBON	2.2K	5%	1/4W
R1303	1-247-139-00	CARBON	2.2K	5%	1/4W
R1304	1-247-139-00	CARBON	2.2K	5%	1/4W
R1305	1-247-139-00	CARBON	2.2K	5%	1/4W
R1306	1-247-139-00	CARBON	2.2K	5%	1/4W
R1307	1-247-139-00	CARBON	2.2K	5%	1/4W
R1308	1-247-139-00	CARBON	2.2K	5%	1/4W
R1309	1-247-139-00	CARBON	2.2K	5%	1/4W
R1310	1-247-139-00	CARBON	2.2K	5%	1/4W
R1311	1-247-139-00	CARBON	2.2K	5%	1/4W
R1312	1-247-171-00	CARBON	47K	5%	1/4W
R1313	1-247-179-00	CARBON	100K	5%	1/4W
R1314	1-247-139-00	CARBON	2.2K	5%	1/4W
R1315	1-246-529-00	CARBON	220K	5%	1/4W
R1316	1-247-147-00	CARBON	4.7K	5%	1/4W
R1317	1-247-133-00	CARBON	1.2K	5%	1/4W
R1318	1-247-123-00	CARBON	470	5%	1/4W
R1319	1-247-107-00	CARBON	100	5%	1/4W
R1320	1-247-155-00	CARBON	10K	5%	1/4W
R1321	1-247-123-00	CARBON	470	5%	1/4W
R1322	1-247-139-00	CARBON	2.2K	5%	1/4W
R1323	1-247-139-00	CARBON	2.2K	5%	1/4W
R1324	1-247-139-00	CARBON	2.2K	5%	1/4W
R1325	1-247-155-00	CARBON	10K	5%	1/4W
R1326	1-247-163-00	CARBON	22K	5%	1/4W
R1327	1-247-119-00	CARBON	330	5%	1/4W
R1328	1-247-091-00	CARBON	22	5%	1/4W
R1329	1-247-159-00	CARBON	15K	5%	1/4W
R1330	1-247-139-00	CARBON	2.2K	5%	1/4W
R1331	1-247-139-00	CARBON	2.2K	5%	1/4W
R1332	1-247-139-00	CARBON	2.2K	5%	1/4W
R1333	1-247-139-00	CARBON	2.2K	5%	1/4W
R1334	1-247-139-00	CARBON	2.2K	5%	1/4W
R1335	1-247-139-00	CARBON	2.2K	5%	1/4W
R1336	1-247-131-00	CARBON	1K	5%	1/4W
R1337	1-247-139-00	CARBON	2.2K	5%	1/4W
R1338	1-247-139-00	CARBON	2.2K	5%	1/4W
R1339	1-247-139-00	CARBON	2.2K	5%	1/4W
R1340	1-247-139-00	CARBON	2.2K	5%	1/4W
R1341	1-247-139-00	CARBON	2.2K	5%	1/4W
R1342	1-247-139-00	CARBON	2.2K	5%	1/4W
		SWITCH			
S1301	1-553-976-00	SWITCH, PUSH			
S1302	1-553-976-00	SWITCH, PUSH			
S1303	1-553-976-00	SWITCH, PUSH			
S1304	1-553-976-00	SWITCH, PUSH			
S1305	1-570-061-11	SWITCH, PUSH (8 KEY)			
S1306	1-570-061-11	SWITCH, PUSH (8 KEY)			
S1307	1-570-061-11	SWITCH, PUSH (8 KEY)			

Ref.No.	Part No.	Description			Remark
S1308	1-570-061-11	SWITCH, PUSH (8 KEY)			
S1309	1-553-976-00	SWITCH, PUSH			
S1310	1-570-061-11	SWITCH, PUSH (8 KEY)			
S1311	1-553-976-00	SWITCH, PUSH			
S1312	1-570-061-11	SWITCH, PUSH (8 KEY)			
S1313	1-570-061-11	SWITCH, PUSH (8 KEY)			
S1316	1-570-062-11	SWITCH, PUSH (2 KEY)			
S1317	1-570-062-11	SWITCH, PUSH (2 KEY)			
S1319	1-570-061-11	SWITCH, PUSH (8 KEY)			
S1321	1-554-824-11	SWITCH, PUSH (1 KEY)			
S1322	1-554-824-11	SWITCH, PUSH (1 KEY)			
		CRYSTAL			
X1301	1-527-476-00	OSCILLATOR, CERAMIC			
**********					
	*A-1330-557-A	C BOARD, COMPLETE			
		**********			
	1-526-644-71	SOCKET, CRT			
		CONNECTOR			
C1	*1-506-371-00	2P PLUG (L)			
C2	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P			
C4	*1-508-765-00	3P PLUG (M)			
		CAPACITOR			
C701	1-102-155-00	CERAMIC	330PF	20%	2KV
C702	1-129-779-00	FILM	0.022MF	20%	1KV
C703	1-123-383-00	ELECT	4.7MF	20%	100V
C704	1-121-759-00	ELECT	4.7MF		250V
C705	1-161-830-00	CERAMIC	0.0047MF		500V
C706	1-129-714-00	FILM	0.01MF	10%	630V
C708	1-102-115-00	CERAMIC	560PF	10%	50V
C709	1-102-115-00	CERAMIC	560PF	10%	50V
C710	1-102-116-00	CERAMIC	680PF	10%	50V
C711	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C712	1-123-356-00	ELECT	10MF	20%	25V
C713	1-102-116-00	CERAMIC	680PF	10%	50V
C714	1-102-116-00	CERAMIC	680PF	10%	50V
C715	1-102-116-00	CERAMIC	680PF	10%	50V
C751	1-102-971-00	CERAMIC	82PF	5%	50V
C752	1-106-178-00	MYLAR	0.0018MF	10%	100V
C753	1-106-212-00	MYLAR	0.047MF	10%	100V
C754	1-123-356-00	ELECT	10MF	20%	25V
C755	1-102-980-00	CERAMIC	270PF	5%	50V
C756	1-106-196-00	MYLAR	0.01MF	10%	100V
C758	1-106-196-00	MYLAR	0.01MF	10%	100V
C760	1-106-196-00	MYLAR	0.01MF	10%	100V
C761	1-106-220-00	MYLAR	0.1MF	10%	100V
C762	1-106-196-00	MYLAR	0.01MF	10%	100V
C763	1-123-356-00	ELECT	10MF	20%	50V

Ref.No.	Part No.	Description				Remark
C764	1-123-321-00	ELECT	220MF	20%	16V	
		DIODE				
D701	8-719-911-19	DIODE 1SS119				
D702	8-719-911-19	DIODE 1SS119				
D703	8-719-911-19	DIODE 1SS119				
D704	8-719-911-19	DIODE 1SS119				
D705	8-719-911-19	DIODE 1SS119				
D706	8-719-911-19	DIODE 1SS119				
		COIL				
L701	1-407-701-00	MICRO INDUCTOR 47UH				
L702	1-407-701-00	MICRO INDUCTOR 47UH				
L703	1-407-701-00	MICRO INDUCTOR 47UH				
L704	1-407-701-00	MICRO INDUCTOR 47UH				
L705	1-459-257-00	COIL, WITH CORE				
L751	1-407-697-00	MICRO INDUCTOR 22UH				
		TRANSISTOR				
Q701	8-729-245-83	TRANSISTOR 2SC2458				
Q702	8-729-326-11	TRANSISTOR 2SC2611				
Q703	8-729-245-83	TRANSISTOR 2SC2458				
Q704	8-729-326-11	TRANSISTOR 2SC2611				
Q705	8-729-245-83	TRANSISTOR 2SC2458				
Q706	8-729-326-11	TRANSISTOR 2SC2611				
Q751	8-729-245-83	TRANSISTOR 2SC2458				
Q752	8-729-245-83	TRANSISTOR 2SC2458				
Q753	8-729-245-83	TRANSISTOR 2SC2458				
Q754	8-729-103-43	TRANSISTOR 2SB734				
Q755	8-729-177-43	TRANSISTOR 2SD774				
Q756	8-729-177-43	TRANSISTOR 2SD774				
Q757	8-729-245-83	TRANSISTOR 2SC2458				
		RESISTOR				
R701	1-202-846-00	SOLID	470K		1/2W	
R702	1-202-720-00	SOLID	1.2M	10%	1/2W	
R703	1-202-844-00	SOLID	330K		1/2W	
R704	1-202-836-00	SOLID	56K		1/2W	
R705	1-202-846-00	SOLID	470K		1/2W	
R707	1-202-842-51	SOLID	220K		1/2W	
R708	1-202-824-00	SOLID	3.3K		1/2W	
R709	1-202-824-00	SOLID	3.3K		1/2W	
R710	1-212-356-00	METAL OXIDE	0.47	5%	1W	F
R711	1-202-549-00	SOLID	100	10%	1/2W	
R712	1-202-543-00	SOLID	56	10%	1/2W	
R713	1-202-824-00	SOLID	3.3K		1/2W	
R714	1-247-107-00	CARBON	100	5%	1/4W	
R715	1-247-819-00	CARBON	330	5%	1/6W	
R716	1-247-817-00	CARBON	270	5%	1/6W	
R717	1-247-839-00	CARBON	2.2K	5%	1/6W	
R718	1-247-783-00	CARBON	10	5%	1/6W	
R719	1-247-841-00	CARBON	2.7K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R720	1-247-823-00	CARBON	470	5%	1/6W	
R722	1-206-747-00	METAL OXIDE	8.2K	5%	3W	F
R723	1-247-819-00	CARBON	330	5%	1/6W	
R724	1-247-817-00	CARBON	270	5%	1/6W	
R725	1-247-839-00	CARBON	2.2K	5%	1/6W	
R726	1-247-783-00	CARBON	10	5%	1/6W	
R727	1-247-835-00	CARBON	1.5K	5%	1/6W	
R728	1-247-817-00	CARBON	270	5%	1/6W	
R730	1-206-747-00	METAL OXIDE	8.2K	5%	3W	F
R731	1-247-819-00	CARBON	330	5%	1/6W	
R732	1-247-813-00	CARBON	180	5%	1/6W	
R733	1-247-839-00	CARBON	2.2K	5%	1/6W	
R734	1-247-841-00	CARBON	2.7K	5%	1/6W	
R735	1-247-777-00	CARBON	5.6	5%	1/6W	
R737	1-206-747-00	METAL OXIDE	8.2K	5%	3W	F
R751	1-247-815-00	CARBON	220	5%	1/6W	
R752	1-247-815-00	CARBON	220	5%	1/6W	
R753	1-247-833-00	CARBON	1.2K	5%	1/6W	
R754	1-247-829-00	CARBON	820	5%	1/6W	
R755	1-213-147-00	METAL OXIDE	2.2K	5%	1W	F
R756	1-247-825-00	CARBON	560	5%	1/6W	
R757	1-247-849-00	CARBON	5.6K	5%	1/6W	
R758	1-247-867-00	CARBON	33K	5%	1/6W	
R759	1-247-783-00	CARBON	10	5%	1/6W	
R760	1-247-819-00	CARBON	330	5%	1/6W	
R761	1-247-815-00	CARBON	220	5%	1/6W	
R762	1-247-815-00	CARBON	220	5%	1/6W	
R764	1-247-831-00	CARBON	1K	5%	1/6W	
R765	1-247-775-00	CARBON	4.7	5%	1/6W	
R766	1-247-867-00	CARBON	33K	5%	1/6W	
R767	1-247-855-00	CARBON	10K	5%	1/6W	
R768	1-247-867-00	CARBON	33K	5%	1/6W	
R769	1-247-831-00	CARBON	1K	5%	1/6W	
R771	1-247-871-00	CARBON	47K	5%	1/6W	
R772	1-247-791-00	CARBON	22	5%	1/6W	
R773	1-247-801-00	CARBON	56	5%	1/6W	
R776	1-247-775-00	CARBON	4.7	5%	1/6W	

VARIABLE RESISTOR

RV701	1-226-157-00	RES, ADJ, METAL GLAZE 1M	
RV702	1-230-105-00	RES, ADJ, CARBON 3.3K	
RV703	1-230-617-11	RES, ADJ, CARBON 1K	
RV704	1-230-105-00	RES, ADJ, CARBON 3.3K	
RV705	1-230-617-11	RES, ADJ, CARBON 1K	
RV706	1-230-105-00	RES, ADJ, CARBON 3.3K	
RV707	1-230-105-00	RES, ADJ, CARBON 3.3K	

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*A-1345-483-A D BOARD, COMPLETE
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*1-508-765-00 3P PLUG (M)
*4-329-153-00 HEAT SINK, V OUT

Ref.No.	Part No.	Description				Remark
	*4-363-404-00	HOLDER, IC				
	4-363-414-00	SPACER, MICA				
	4-374-104-01	HOLDER, TR				

CAPACITOR

C602	1-123-333-00	ELECT	100MF	20%	16V
C603	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C604	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C605	1-123-333-00	ELECT	100MF	20%	25V
C606	1-123-360-00	ELECT	100MF	20%	50V
C607	1-123-356-00	ELECT	10MF	20%	16V
C608	1-123-330-00	ELECT	22MF	20%	16V
C610	1-123-335-00	ELECT	330MF	20%	25V
C611	1-123-360-00	ELECT	100MF	20%	50V
C612	1-123-332-00	ELECT	47MF	20%	16V
C613	1-123-333-00	ELECT	100MF	20%	25V
C614	1-101-002-00	CERAMIC	0.0022MF		50V
C620	⚠1-136-311-51	FILM	0.47MF	20%	300V
C621	⚠1-130-678-51	FILM	0.047MF	20%	125V
C622	1-161-953-00	CERAMIC	0.0047MF	20%	400V
C623	1-161-953-00	CERAMIC	0.0047MF	20%	400V
C624	1-161-953-00	CERAMIC	0.0047MF	20%	400V
C625	1-161-953-00	CERAMIC	0.0047MF	20%	400V
C626	1-161-953-00	CERAMIC	0.0047MF	20%	400V
C627	1-125-295-00	ELECT(BLOCK)	560MF	20%	200V
C628	1-125-295-00	ELECT(BLOCK)	560MF	20%	200V
C629	1-161-953-00	CERAMIC	0.0047MF	20%	400V
C630	1-161-953-00	CERAMIC	0.0047MF	20%	400V
C1501	1-102-117-00	CERAMIC	820PF	10%	50V
C1502	1-162-117-00	CERAMIC	100PF	10%	500V
C1503	1-106-172-00	MYLAR	0.001MF	10%	100V
C1504	1-123-380-00	ELECT	1MF	20%	50V
C1505	1-106-212-00	MYLAR	0.047MF	10%	100V
C1507	1-108-595-00	MYLAR	0.047MF	5%	50V
C1508	1-106-192-00	MYLAR	0.0068MF	10%	100V
C1509	1-106-220-00	MYLAR	0.1MF	10%	100V
C1510	1-106-204-00	MYLAR	0.022MF	10%	100V
C1511	1-123-356-00	ELECT	10MF	20%	16V
C1512	1-123-381-00	ELECT	2.2MF	20%	50V
C1513	1-130-868-00	FILM	0.0056MF	5%	50V
C1514	1-123-356-00	ELECT	10MF	20%	16V
C1515	1-123-356-00	ELECT	10MF	20%	16V
C1516	1-102-820-00	CERAMIC	330PF	5%	50V
C1517	1-123-321-00	ELECT	220MF	20%	16V
C1518	1-123-447-00	ELECT	0.22MF	20%	50V
C1519	1-136-173-00	FILM	0.47MF	5%	50V
C1520	1-123-379-00	ELECT	0.47MF	20%	50V
C1521	1-123-380-00	ELECT	1MF	20%	50V
C1522	1-106-172-00	MYLAR	0.001MF	10%	100V
C1523	1-123-379-00	ELECT	0.47MF	20%	50V
C1524	1-106-204-00	MYLAR	0.022MF	10%	100V
C1525	1-123-369-00	ELECT	4.7MF	20%	50V
C1526	1-123-323-00	ELECT	470MF	20%	16V

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

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Ref.No.	Part No.	Description			Remark
C1527	1-106-190-00	MYLAR	0.0056MF	10%	100V
C1528	1-106-204-00	MYLAR	0.022MF	10%	100V
C1529	1-102-030-00	CERAMIC	330PF	10%	500V
C1530	1-123-357-00	ELECT	22MF	20%	50V
C1531	1-102-038-00	CERAMIC	0.001MF		500V
C1534	1-123-356-00	ELECT	10MF	20%	16V
C1535	1-106-190-00	MYLAR	0.0056MF	10%	100V
C1536	1-123-232-00	ELECT	4.7MF	20%	50V
C1538	1-102-114-00	CERAMIC	470PF	10%	50V
C1540	1-123-332-00	ELECT	47MF	20%	25V
C1541	1-102-157-00	CERAMIC	560PF	10%	500V
C1542	1-123-332-00	ELECT	47MF	20%	16V
C1543	1-102-030-00	CERAMIC	330PF	10%	500V
C1544	1-108-437-00	MYLAR	0.22MF	10%	200V
C1545	1-108-431-00	MYLAR	0.068MF	10%	200V
C1546	1-123-931-00	ELECT	3.3MF	20%	160V
C1547	1-123-356-00	ELECT	10MF	20%	50V
C1548	1-102-212-00	CERAMIC	820PF	10%	500V
C1549	1-108-429-00	MYLAR	0.047MF	10%	200V
C1550	1-108-429-00	MYLAR	0.047MF	10%	200V
C1551	1-124-609-11	ELECT	470MF	10%	50V
C1552	1-123-380-00	ELECT	1MF	20%	50V
C1553	1-123-357-00	ELECT	22MF	20%	50V
C1555	1-106-172-00	MYLAR	0.001MF	10%	100V
C1556	1-106-188-00	MYLAR	0.0047MF	10%	100V
C1557	1-136-173-00	FILM	0.47MF	5%	50V
C1558	1-102-212-00	CERAMIC	820PF	10%	500V
C1559	1-101-004-00	CERAMIC	0.01MF		50V
C1567	1-102-112-00	CERAMIC	330PF	10%	50V
C1572	1-106-196-00	MYLAR	0.01MF	10%	100V
C1573	1-123-380-00	ELECT	1MF	20%	50V
C1574	1-106-204-00	MYLAR	0.022MF	10%	100V
C1575	1-106-196-00	MYLAR	0.01MF	10%	100V
C1576	1-106-212-00	MYLAR	0.047MF	10%	100V
C1577	1-106-212-00	MYLAR	0.047MF	10%	100V
C1578	1-123-379-00	ELECT	0.47MF	20%	50V
C1579	1-123-330-00	ELECT	22MF	20%	25V
C1591	1-123-356-00	ELECT	10MF	20%	25V
C1592	1-123-356-00	ELECT	10MF	20%	25V
C1593	1-123-379-00	ELECT	0.47MF	20%	50V
C1594	1-106-196-00	MYLAR	0.01MF	10%	100V
C1595	1-106-184-00	MYLAR	0.0033MF	10%	100V
C1596	1-102-117-00	CERAMIC	820PF	10%	50V
C1600	1-106-180-00	MYLAR	0.0022MF	10%	100V
C1601	1-106-208-00	MYLAR	0.033MF	10%	100V
C1602	1-106-184-00	MYLAR	0.0033MF	10%	100V
C1604	1-123-359-00	ELECT	47MF	20%	50V
C1605	1-123-357-00	ELECT	22MF	20%	50V
C1606	1-123-332-00	ELECT	47MF	20%	16V
C1607	1-123-360-00	ELECT	100MF	20%	50V
C1608	1-129-701-00	FILM	0.01MF	5%	100V
C1609	1-106-208-00	MYLAR	0.033MF	10%	100V
C1610	1-123-361-00	ELECT	220MF	20%	50V

Ref.No.	Part No.	Description			Remark
C1611	1-106-212-00	MYLAR	0.047MF	10%	100V
C1651	1-123-364-00	ELECT	1000MF	20%	50V
C1652	1-102-038-00	CERAMIC	0.001MF		500V
C1653	1-108-429-00	MYLAR	0.047MF	10%	200V
C1654	1-102-223-00	CERAMIC	0.0047MF	10%	2KV
C1655	1-102-212-00	CERAMIC	820PF	10%	500V
C1656	1-123-336-00	ELECT	470MF	20%	25V
C1657	1-124-347-00	ELECT	100MF	20%	160V
C1658	1-123-384-00	ELECT	10MF	20%	100V
C1659	1-106-377-00	MYLAR	0.027MF	10%	200V
C1660	1-123-379-00	ELECT	0.47MF	20%	50V
C1661	1-102-244-00	CERAMIC	220PF	10%	500V
C1662	1-106-367-00	MYLAR	0.01MF	10%	200V
C1663⚠	1-162-134-51	CERAMIC	470PF	10%	2KV
C1664⚠	1-136-317-11	FILM	0.025MF	3%	2KV
C1665⚠	1-162-115-51	CERAMIC	330PF	10%	2KV
C1666	1-106-351-00	MYLAR	0.0022MF	10%	200V
C1667⚠	1-136-315-51	FILM	0.047MF	5%	630V
C1668⚠	1-129-704-51	FILM	0.0015MF	10%	630V
C1669	1-123-332-00	ELECT	47MF	20%	25V
C1670⚠	1-136-053-11	FILM	1.2MF	5%	200V
C1671	1-106-172-00	MYLAR	0.001MF	10%	100V
C1672	1-108-431-00	MYLAR	0.068MF	10%	200V
C1673⚠	1-136-179-11	FILM	1.5MF	5%	200V
C1674	1-136-184-00	MYLAR	0.68MF	10%	250V
C1675⚠	1-162-115-51	CERAMIC	330PF	10%	2KV
C1676	1-108-429-00	MYLAR	0.047MF	10%	200V
C1677	1-102-233-00	CERAMIC	33PF	10%	500V

CONNECTOR

D1	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P
D2	*1-564-444-11	PLUG, CONNECTOR (2.5MM) 8P
D3	*1-508-766-00	4P PLUG (M)
D4	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P
D5	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P
D6	*1-508-766-00	4P PLUG (M)
D8	*1-508-765-00	3P PLUG (M)
D10	*1-508-765-00	3P PLUG (M)
D11	*1-508-767-00	5P PLUG
D12	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P
D13	*1-508-767-00	5P PLUG
D14	*1-508-766-00	4P PLUG (M)
D15	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)
D16	*1-508-765-00	3P PLUG (M)
DY1	*1-508-765-00	3P PLUG (M)
DY2	*1-508-765-00	3P PLUG (M)
DY3	*1-508-766-00	4P PLUG (M)

DIODE

D605	8-719-911-55	DIODE U05G
D606	8-719-911-19	DIODE 1SS119
D607	8-719-911-19	DIODE 1SS119
D609⚠	8-719-521-10	DIODE SIVB10-S

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description	Remark
D610	8-719-102-72	DIODE RD5.6E-N3	
D621	8-719-911-55	DIODE U05G	
D622	8-719-911-55	DIODE U05G	
D623	8-719-911-55	DIODE U05G	
D1501	8-719-911-19	DIODE 1SS119	
D1502	8-719-190-00	DIODE RD24E-BZ7	
D1503	8-719-100-35	DIODE RD5.6E-B2	
D1504	8-719-911-55	DIODE U05G	
D1507	8-719-100-35	DIODE RD5.6E-B2	
D1508	8-719-101-58	DIODE RD5.6E-L2	
D1509	8-719-911-19	DIODE 1SS119	
D1510	8-719-911-19	DIODE 1SS119	
D1511	8-719-911-19	DIODE 1SS119	
D1512	8-719-911-19	DIODE 1SS119	
D1513	8-719-300-76	DIODE RH1A	
D1514	8-719-200-02	DIODE 10E2	
D1515	8-719-911-55	DIODE U05G	
D1516	8-719-200-02	DIODE 10E2	
D1517	8-719-911-19	DIODE 1SS119	
D1651	8-719-300-38	DIODE GU-3A	
D1652	8-719-300-91	DIODE EM1ZS	
D1653	8-719-300-76	DIODE RH1A	
D1654	8-719-901-19	DIODE V11N	
D1655	8-719-305-15	DIODE GH3F	
D1656	8-719-305-15	DIODE GH3F	
D1657	8-719-900-26	DIODE ERD29-08J	
D1658	8-719-911-55	DIODE U05G	
D1659	8-719-911-55	DIODE U05G	
D1660	8-719-300-65	DIODE ES1F	
		FUSE	
F601 ⚠	1-532-627-11	FUSE, GLASS TUBE 125V 7A	
	1-517-072-00	LAMP HOLDER, F601	
		IC	
IC1501	8-759-100-60	IC UPC1377C	
IC1502	6-066-717-10	IC TDA1082	
		COIL	
L1501 ⚠	1-459-059-12	COIL, DUST CORE	
L1504	1-408-225-00	MICRO INDUCTOR 3.3UH	
L1505	1-408-225-00	MICRO INDUCTOR 3.3UH	
L1506	1-408-225-00	MICRO INDUCTOR 3.3UH	
L1507 ⚠	1-459-104-11	COIL, DUST CORE	
L1508	1-407-877-00	MICRO INDUCTOR 15MMH	
L1509	1-459-119-00	COIL, DUST CORE(ARC)	
L1512	1-459-215-00	CORE COIL	
L1513	1-459-104-00	COIL, DUST CORE	
L1514 ⚠	1-459-308-31	COIL, HORIZONTAL LINEARITY	
L1515 ⚠	1-421-390-11	COIL, FERRITE (PMC)	
L1516	1-408-235-00	MICRO INDUCTOR 2.2MMH	
L1517	1-407-365-00	COIL, CHOKE	
L1518	1-407-365-00	COIL, CHOKE	
L1519	1-407-365-00	COIL, CHOKE	
L1520	1-407-365-00	COIL, CHOKE	
L1522 ⚠	1-459-485-11	COIL, CHOKE	
		TRANSISTOR	
Q602	8-729-965-22	TRANSISTOR 2SC1652	
Q603	8-729-201-78	TRANSISTOR 2SD1406	
Q1501	8-729-204-83	TRANSISTOR 2SA1048GR	
Q1502	8-729-245-83	TRANSISTOR 2SC2458	
Q1503	8-729-245-83	TRANSISTOR 2SC2458	
Q1504	8-729-245-83	TRANSISTOR 2SC2458	
Q1506	8-729-204-83	TRANSISTOR 2SA1048GR	
Q1507	8-729-169-02	TRANSISTOR 2SC2690A	
Q1508	8-729-122-02	TRANSISTOR 2SA1220A	
Q1509	8-729-195-82	TRANSISTOR 2SC2958	
Q1510	8-729-204-83	TRANSISTOR 2SA1048GR	
Q1511	8-729-245-83	TRANSISTOR 2SC2458	
Q1513	8-729-245-83	TRANSISTOR 2SC2458	
Q1514	8-729-245-83	TRANSISTOR 2SC2458	
Q1515	8-729-245-83	TRANSISTOR 2SC2458	
Q1516	8-729-245-83	TRANSISTOR 2SC2458	
Q1517	8-729-245-83	TRANSISTOR 2SC2458	
Q1521	8-729-122-02	TRANSISTOR 2SA1220A	
Q1522	8-729-169-02	TRANSISTOR 2SC2690A	
Q1523	8-729-378-84	TRANSISTOR 2SD788	
Q1524	9-982-269-01	TRANSISTOR 2SC3056	
	4-342-013-00	SPACER, MICA, Q1524	
Q1525	8-729-245-83	TRANSISTOR 2SC2458	
Q1527	8-729-175-22	TRANSISTOR 2SC2752	
Q1528	8-729-300-90	TRANSISTOR 2SD1497-06	
		RESISTOR	
R602	1-247-147-00	CARBON 4.7K 5% 1/4W	
R603	1-247-139-00	CARBON 2.2K 5% 1/4W	
R604 ⚠	1-213-135-61	METAL OXIDE 220 5% 1W	F
R606	1-247-831-00	CARBON 1K 5% 1/8W	F
R607	1-247-855-00	CARBON 10K 5% 1/6W	
R608	1-247-131-00	CARBON 1K 5% 1/4W	
R620	1-202-723-00	SOLID 2.2M 10% 1/2W	
R621 ⚠	1-202-723-51	SOLID 2.2M 10% 1/2W	
R622	1-205-768-11	CEMENTED 1.2 5% 15W	
R623	1-246-525-00	CARBON 150K 5% 1/4W	
R624	1-246-525-00	CARBON 150K 5% 1/4W	
R1500	1-247-831-00	CARBON 1K 5% 1/6W	
R1501	1-247-155-00	CARBON 10K 5% 1/4W	
R1502	1-206-700-00	METAL OXIDE 33K 5% 2W	F
R1503	1-247-815-00	CARBON 220 5% 1/6W	
R1504	1-247-819-00	CARBON 330 5% 1/6W	
R1505	1-247-845-00	CARBON 3.9K 5% 1/6W	
R1506	1-247-107-00	CARBON 100 5% 1/4W	
R1507	1-246-536-00	CARBON 430K 5% 1/4W	
R1508	1-247-163-00	CARBON 22K 5% 1/4W	
R1509	1-247-863-00	CARBON 22K 5% 1/6W	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

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Ref.No.	Part No.	Description				Remark
R1510	1-247-877-00	CARBON	82K	5%	1/6W	
R1511	1-247-868-00	CARBON	36K	5%	1/6W	
R1512	1-247-819-00	CARBON	330	5%	1/6W	
R1513	1-247-177-00	CARBON	82K	5%	1/4W	
R1514	1-246-485-25	CARBON	3.3K	5%	1/4W	
R1515	1-247-857-00	CARBON	12K	5%	1/6W	
R1516	1-247-867-00	CARBON	33K	5%	1/6W	
R1517	1-247-827-00	CARBON	680	5%	1/6W	
R1518	1-247-827-00	CARBON	680	5%	1/6W	
R1519	1-247-851-00	CARBON	6.8K	5%	1/6W	
R1520	1-247-135-00	CARBON	1.5K	5%	1/4W	
R1521	1-247-177-00	CARBON	82K	5%	1/4W	
R1522	1-215-463-00	METAL	56K	1%	1/6W	
R1523	1-247-857-00	CARBON	12K	5%	1/6W	
R1524	1-247-158-00	CARBON	13K	5%	1/4W	
R1525	1-247-845-00	CARBON	3.9K	5%	1/6W	
R1526	1-247-867-00	CARBON	33K	5%	1/6W	
R1527	1-247-155-00	CARBON	10K	5%	1/4W	
R1528	1-247-839-00	CARBON	2.2K	5%	1/6W	
R1529	1-214-753-00	METAL	10K	1%	1/4W	
R1530	1-214-750-00	METAL	7.5K	1%	1/4W	
⊠R1531⚠		METAL			1/4W	
R1532	1-247-855-00	CARBON	10K	5%	1/6W	
R1533	1-206-692-00	METAL OXIDE	15K	5%	2W	F
⊠R1534⚠		METAL			1/4W	
⊠R1535⚠		METAL			1/4W	
R1537	1-214-783-00	METAL	180K	1%	1/4W	
R1538	1-214-753-00	METAL	10K	1%	1/4W	
R1539	1-247-177-00	CARBON	82K	5%	1/4W	
R1540	1-246-545-00	CARBON	1M	5%	1/4W	
R1541	1-202-723-00	SOLID	2.2M	10%	1/2W	
R1543	1-214-750-00	METAL	7.5K	1%	1/4W	
R1544	1-214-779-00	METAL	120K	1%	1/4W	
R1545	1-214-781-00	METAL	150K	1%	1/4W	
R1546	1-247-831-00	CARBON	1K	5%	1/6W	
R1547	1-214-766-00	METAL	36K	1%	1/4W	
R1548	1-247-119-00	CARBON	330	5%	1/4W	
R1549	1-247-833-00	CARBON	1.2K	5%	1/6W	
R1550	1-213-161-00	METAL OXIDE	33K	5%	1W	F
R1551	1-247-131-00	CARBON	1K	5%	1/4W	
R1552	1-247-109-00	CARBON	120	5%	1/4W	
R1553	1-213-155-00	METAL OXIDE	10K	5%	1W	F
R1554	1-247-807-00	CARBON	100	5%	1/6W	
R1555	1-247-879-00	CARBON	100K	5%	1/6W	
⊠R1556⚠		CARBON			1/4W	
R1558	1-247-903-00	CARBON	1M	5%	1/6W	
R1559	1-247-903-00	CARBON	1M	5%	1/6W	
R1560	1-247-807-00	CARBON	100	5%	1/8W	F
R1561	1-247-823-00	CARBON	470	5%	1/8W	F
R1562	1-213-145-00	METAL OXIDE	1.5K	5%	1W	F
R1563	1-212-361-00	METAL OXIDE	1.2	5%	1W	F
R1564	1-212-361-00	METAL OXIDE	1.2	5%	1W	F
R1565	1-247-791-00	CARBON	22	5%	1/8W	F

Ref.No.	Part No.	Description				Remark
R1566	1-247-034-00	CARBON	220	5%	1/8W	F
R1567	1-213-141-00	METAL OXIDE	680	5%	1W	F
R1568	1-247-797-00	CARBON	39	5%	1/8W	F
R1569	1-213-148-00	METAL OXIDE	2.7K	5%	1W	F
R1570	1-247-835-00	CARBON	1.5K	5%	1/6W	
R1571	1-247-167-00	CARBON	33K	5%	1/4W	
R1572	1-247-873-00	CARBON	56K	5%	1/6W	
R1573	1-247-855-00	CARBON	10K	5%	1/6W	
R1574	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1575	1-247-835-00	CARBON	1.5K	5%	1/6W	
R1576	1-247-815-00	CARBON	220	5%	1/6W	
R1577	1-247-131-00	CARBON	1K	5%	1/4W	
⊠R1578⚠		METAL			1/4W	
R1579	1-215-411-00	METAL	390	1%	1/6W	
R1580	1-247-823-00	CARBON	470	5%	1/6W	
R1581	1-247-837-00	CARBON	1.8K	5%	1/6W	
R1582	1-246-485-25	CARBON	3.3K	5%	1/4W	
R1583	1-212-364-00	METAL OXIDE	2.2	5%	1W	F
R1584	1-213-147-00	METAL OXIDE	2.2K	5%	1W	F
R1585	1-247-171-00	CARBON	47K	5%	1/4W	
R1586	1-206-463-00	METAL OXIDE	10	5%	2W	F
R1587	1-206-463-00	METAL OXIDE	10	5%	2W	F
R1588	1-246-503-25	CARBON	18K	5%	1/4W	
R1589	1-247-855-00	CARBON	10K	5%	1/6W	
R1590	1-247-839-00	CARBON	2.2K	5%	1/6W	
R1591	1-247-849-00	CARBON	5.6K	5%	1/6W	
R1592	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1593	1-247-831-00	CARBON	1K	5%	1/6W	
R1594	1-247-857-00	CARBON	12K	5%	1/6W	
R1595	1-247-875-00	CARBON	68K	5%	1/6W	
R1596	1-247-879-00	CARBON	100K	5%	1/6W	
R1597	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1598	1-247-875-00	CARBON	68K	5%	1/6W	
R1599	1-247-839-00	CARBON	2.2K	5%	1/6W	
R1600	1-247-855-00	CARBON	10K	5%	1/6W	
R1601	1-247-867-00	CARBON	33K	5%	1/6W	
R1602	1-247-139-00	CARBON	2.2K	5%	1/4W	
R1603	1-247-167-00	CARBON	33K	5%	1/4W	
R1604	1-247-855-00	CARBON	10K	5%	1/6W	
R1605	1-247-871-00	CARBON	47K	5%	1/6W	
R1606	1-247-871-00	CARBON	47K	5%	1/6W	
R1607	1-247-833-00	CARBON	1.2K	5%	1/6W	
R1608	1-247-875-00	CARBON	68K	5%	1/6W	
R1609	1-247-875-00	CARBON	68K	5%	1/6W	
R1610	1-247-855-00	CARBON	10K	5%	1/6W	
R1611	1-247-831-00	CARBON	1K	5%	1/6W	
R1612	1-247-107-00	CARBON	100	5%	1/4W	
R1613	1-247-875-00	CARBON	68K	5%	1/6W	
R1614	1-247-855-00	CARBON	10K	5%	1/6W	
R1616	1-246-485-25	CARBON	3.3K	5%	1/4W	
R1617	1-247-863-00	CARBON	22K	5%	1/6W	
R1618	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1619	1-247-863-00	CARBON	22K	5%	1/6W	

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description				Remark
R1620	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1621	1-247-799-00	CARBON	47	5%	1/8W	F
R1622	1-247-799-00	CARBON	47	5%	1/8W	F
R1623	1-247-783-00	CARBON	10	5%	1/8W	F
R1624	1-247-855-00	CARBON	10K	5%	1/6W	
R1625	1-247-871-00	CARBON	47K	5%	1/6W	
R1626	1-247-795-00	CARBON	33	5%	1/8W	F
R1627	1-247-791-00	CARBON	22	5%	1/8W	F
R1631	1-247-153-00	CARBON	8.2K	5%	1/4W	
R1632	1-247-877-00	CARBON	82K	5%	1/6W	
R1633	1-247-861-00	CARBON	18K	5%	1/6W	
R1634	1-247-861-00	CARBON	18K	5%	1/6W	
R1635	1-214-775-00	METAL	82K	1%	1/4W	
R1636	1-247-861-00	CARBON	18K	5%	1/6W	
R1637	1-247-857-00	CARBON	12K	5%	1/6W	
R1638	1-247-815-00	CARBON	220	5%	1/6W	
R1639	1-213-133-00	METAL OXIDE	150	5%	1W	F
R1640	1-247-817-00	CARBON	270	5%	1/6W	
R1641	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1642	1-247-845-00	CARBON	3.9K	5%	1/6W	
R1643	1-247-825-00	CARBON	560	5%	1/6W	
R1644	1-247-807-00	CARBON	100	5%	1/6W	
R1649	1-247-111-00	CARBON	150	5%	1/4W	
R1651	1-210-859-00	CARBON	1.2	5%	1/8W	F
R1652	1-210-859-00	CARBON	1.2	5%	1/8W	F
R1653	1-206-511-00	METAL OXIDE	10	5%	3W	F
R1654	1-213-146-00	METAL OXIDE	1.8K	5%	1W	F
R1655	1-247-853-00	CARBON	8.2K	5%	1/6W	
R1656	1-206-733-00	METAL OXIDE	2.2K	5%	3W	F
R1657	1-207-453-00	WIREWOUND	0.15	10%	1/2W	
R1658	1-247-835-00	CARBON	1.5K	5%	1/6W	
R1659	1-247-099-00	CARBON	47	5%	1/4W	
R1660	1-206-658-00	METAL OXIDE	560	5%	2W	F
R1661	1-213-141-00	METAL OXIDE	680	5%	1W	F
R1662	1-213-128-00	METAL OXIDE	56	5%	1W	F
R1663	1-212-368-00	METAL OXIDE	4.7	5%	1W	F
R1664	1-247-817-00	CARBON	270	5%	1/8W	F
R1665	1-206-485-00	METAL OXIDE	82	5%	2W	F
R1666	1-206-485-00	METAL OXIDE	82	5%	2W	F

VARIABLE RESISTOR

RV1501	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K
RV1503	1-228-717-00	RES, ADJ, CERAMIC CARBON	220
RV1504	1-228-727-00	RES, ADJ, CERAMIC CARBON	47K
RV1505	1-228-727-00	RES, ADJ, CERAMIC CARBON	47K
RV1506	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
RV1507	1-228-727-00	RES, ADJ, CERAMIC CARBON	47K
RV1508	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
RV1509	1-228-727-00	RES, ADJ, CERAMIC CARBON	47K
RV1510	1-228-728-00	RES, ADJ, CERAMIC CARBON	100K
RV1511	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K
RV1512	1-228-718-00	RES, ADJ, CERAMIC CARBON	330
RV1513	1-228-720-00	RES, ADJ, CERAMIC CARBON	1K

Ref.No.	Part No.	Description	Remark
		RELAY	
RY601	⚠1-515-491-11	RELAY (POWER)	
		SPARK GAP	
SG1501	1-519-063-XX	DISCHARGING GAP	
		TRANSFORMER	
T601	⚠1-448-019-11	TRANSFORMER, POWER	
T602	⚠ 1-421-730-11	LFT	
T1502	1-437-131-00	TRANSFORMER, DRIVE	
T1503	1-413-059-00	TRANSFORMER, FERRITE (DFT)	
		THERMISTOR	
THP601	⚠1-806-214-11	THERMISTER, POSITIVE	

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	*A-1381-024-A	U BOARD, COMPLETE	
		**********	
	1-536-889-11	TERMINAL BOARD, INPUT/OUTPUT	
	*1-560-984-00	CONNECTOR (PLUG) 34P	

CAPACITOR

C801	1-123-380-00	ELECT	1MF	20%	50V
C802	1-123-380-00	ELECT	1MF	20%	50V
C803	1-123-380-00	ELECT	1MF	20%	50V
C804	1-123-380-00	ELECT	1MF	20%	50V
C805	1-123-380-00	ELECT	1MF	20%	50V
C806	1-123-611-00	ELECT	1MF	20%	50V
C807	1-123-611-00	ELECT	1MF	20%	50V
C808	1-123-324-00	ELECT	1000MF	20%	16V
C809	1-123-324-00	ELECT	1000MF	20%	16V
C810	1-123-324-00	ELECT	1000MF	20%	16V
C811	1-123-611-00	ELECT	1MF	20%	50V
C812	1-123-611-00	ELECT	1MF	20%	50V
C813	1-123-380-00	ELECT	1MF	20%	50V
C814	1-123-380-00	ELECT	1MF	20%	50V
C815	1-123-380-00	ELECT	1MF	20%	50V
C816	1-123-380-00	ELECT	1MF	20%	50V
C817	1-123-307-00	ELECT	100MF	20%	6.3V
C818	1-123-318-00	ELECT	33MF	20%	16V
C819	1-123-308-00	ELECT	220MF	20%	10V
C820	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C821	1-102-965-00	CERAMIC	39PF	5%	50V
C822	1-102-965-00	CERAMIC	39PF	5%	50V
C823	1-102-965-00	CERAMIC	39PF	5%	50V
C824	1-123-820-00	ELECT	33MF	20%	16V
C825	1-123-820-00	ELECT	33MF	20%	16V
C826	1-123-820-00	ELECT	33MF	20%	16V
C827	1-102-824-00	CERAMIC	470PF	5%	50V
C829	1-101-880-00	CERAMIC	47PF	5%	50V
C830	1-123-333-00	ELECT	100MF	20%	16V

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

U

Ref.No.	Part No.	Description			Remark
C832	1-123-622-00	ELECT	22MF	20%	16V
C834	1-123-318-00	ELECT	33MF	20%	16V
C835	1-123-820-00	ELECT	33MF	20%	16V
C836	1-123-820-00	ELECT	33MF	20%	16V
C837	1-123-318-00	ELECT	33MF	20%	16V
C839	1-123-380-00	ELECT	1MF	20%	50V
C842	1-123-321-00	ELECT	220MF	20%	16V
C843	1-123-318-00	ELECT	33MF	20%	16V
C845	1-123-356-00	ELECT	10MF	20%	16V
C846	1-119-358-00	ELECT	22MF		16V
C847	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C851	1-123-332-00	ELECT	47MF	20%	16V
C852	1-123-318-00	ELECT	33MF	20%	16V
C853	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C880	1-123-307-00	ELECT	100MF	20%	6.3V
		DIODE			
D801	8-719-102-73	DIODE	RD6.2E-N1		
D802	8-719-102-73	DIODE	RD6.2E-N1		
D806	8-719-102-73	DIODE	RD6.2E-N1		
D807	8-719-911-19	DIODE	1SS119		
D808	8-719-911-19	DIODE	1SS119		
D809	8-719-911-19	DIODE	1SS119		
D814	8-719-911-19	DIODE	1SS119		
D815	8-719-911-19	DIODE	1SS119		
D816	8-719-911-19	DIODE	1SS119		
D817	8-719-911-19	DIODE	1SS119		
D818	8-719-102-73	DIODE	RD6.2E-N1		
		IC			
IC801	8-759-240-52	IC	TC4052BP		
IC802	8-759-240-52	IC	TC4052BP		
IC803	8-759-900-09	IC	SN74LS09N		
IC804	8-759-140-53	IC	UPD4053BC		
IC805	8-759-240-52	IC	TC4052BP		
IC806	8-759-900-05	IC	SN74LS05N		
IC807	8-759-145-58	IC	UPC4558C		
		COIL			
L801	1-408-235-00	MICRO INDUCTOR	2.2MMH		
L802	1-408-417-00	MICRO INDUCTOR	47UH		
		TRANSISTOR			
Q802	8-729-204-83	TRANSISTOR	2SA1048GR		
Q803	8-729-204-83	TRANSISTOR	2SA1048GR		
Q804	8-729-204-83	TRANSISTOR	2SA1048GR		
Q805	8-729-245-83	TRANSISTOR	2SC2458		
Q806	8-729-245-83	TRANSISTOR	2SC2458		
Q807	8-729-245-83	TRANSISTOR	2SC2458		
Q812	8-729-245-83	TRANSISTOR	2SC2458		
Q813	8-729-245-83	TRANSISTOR	2SC2458		
Q814	8-729-245-83	TRANSISTOR	2SC2458		
Q815	8-729-245-83	TRANSISTOR	2SC2458		
Q816	8-729-245-83	TRANSISTOR	2SC2458		

Ref.No.	Part No.	Description			Remark
Q817	8-729-245-83	TRANSISTOR	2SC2458		
Q818	8-729-245-83	TRANSISTOR	2SC2458		
Q819	8-729-245-83	TRANSISTOR	2SC2458		
Q820	8-729-245-83	TRANSISTOR	2SC2458		
Q821	8-729-245-83	TRANSISTOR	2SC2458		
Q822	8-729-204-83	TRANSISTOR	2SA1048GR		
Q823	8-729-204-83	TRANSISTOR	2SA1048GR		
Q824	8-729-245-83	TRANSISTOR	2SC2458		
Q825	8-729-204-83	TRANSISTOR	2SA1048GR		
Q826	8-729-245-83	TRANSISTOR	2SC2458		
Q827	8-729-245-83	TRANSISTOR	2SC2458		
Q828	8-729-245-83	TRANSISTOR	2SC2458		
Q829	8-729-204-83	TRANSISTOR	2SA1048GR		
Q830	8-729-204-83	TRANSISTOR	2SA1048GR		
Q831	8-729-204-83	TRANSISTOR	2SA1048GR		
Q832	8-729-204-83	TRANSISTOR	2SA1048GR		
Q833	8-729-245-83	TRANSISTOR	2SC2458		
Q834	8-729-245-83	TRANSISTOR	2SC2458		
Q835	8-729-245-83	TRANSISTOR	2SC2458		
		RESISTOR			
R801	1-247-123-00	CARBON	470	5%	1/4W
R802	1-247-873-00	CARBON	56K	5%	1/6W
R803	1-247-873-00	CARBON	56K	5%	1/6W
R804	1-247-115-00	CARBON	220	5%	1/4W
R805	1-247-879-00	CARBON	100K	5%	1/6W
R806	1-247-873-00	CARBON	56K	5%	1/6W
R807	1-247-873-00	CARBON	56K	5%	1/6W
R808	1-247-179-00	CARBON	100K	5%	1/4W
R809	1-246-543-00	CARBON	820K	5%	1/4W
R810	1-247-831-00	CARBON	1K	5%	1/6W
R811	1-247-115-00	CARBON	220	5%	1/4W
R812	1-247-847-00	CARBON	4.7K	5%	1/6W
R813	1-247-869-00	CARBON	39K	5%	1/6W
R814	1-247-847-00	CARBON	4.7K	5%	1/6W
R815	1-247-855-00	CARBON	10K	5%	1/6W
R816	1-247-855-00	CARBON	10K	5%	1/6W
R818	1-247-131-00	CARBON	1K	5%	1/4W
R819	1-247-131-00	CARBON	1K	5%	1/4W
R820	1-247-901-00	CARBON	820K	5%	1/6W
R821	1-247-869-00	CARBON	39K	5%	1/6W
R822	1-247-115-00	CARBON	220	5%	1/4W
R823	1-247-107-00	CARBON	100	5%	1/4W
R824	1-247-117-00	CARBON	270	5%	1/4W
R825	1-247-815-00	CARBON	220	5%	1/6W
R827	1-247-893-00	CARBON	390K	5%	1/6W
R828	1-247-893-00	CARBON	390K	5%	1/6W
R829	1-246-507-00	CARBON	27K	5%	1/4W
R830	1-246-507-00	CARBON	27K	5%	1/4W
R831	1-246-507-00	CARBON	27K	5%	1/4W
R832	1-246-507-00	CARBON	27K	5%	1/4W
R833	1-246-507-00	CARBON	27K	5%	1/4W
R834	1-247-865-00	CARBON	27K	5%	1/6W

Ref.No.	Part No.	Description				Remark
R835	1-247-893-00	CARBON	390K	5%	1/6W	
R837	1-246-463-25	CARBON	390	5%	1/4W	
R838	1-247-895-00	CARBON	470K	5%	1/6W	
R839	1-246-537-00	CARBON	470K	5%	1/4W	
R840	1-247-104-00	CARBON	75	5%	1/4W	
R841	1-247-149-00	CARBON	5.6K	5%	1/4W	
R842	1-247-149-00	CARBON	5.6K	5%	1/4W	
R843	1-247-155-00	CARBON	10K	5%	1/4W	
R844	1-247-155-00	CARBON	10K	5%	1/4W	
R845	1-247-895-00	CARBON	470K	5%	1/6W	
R846	1-247-104-00	CARBON	75	5%	1/4W	
R847	1-246-507-00	CARBON	27K	5%	1/4W	
R848	1-246-507-00	CARBON	27K	5%	1/4W	
R849	1-247-131-00	CARBON	1K	5%	1/4W	
R850	1-247-131-00	CARBON	1K	5%	1/4W	
R851	1-247-155-00	CARBON	10K	5%	1/4W	
R852	1-247-863-00	CARBON	22K	5%	1/6W	
R853	1-246-463-00	CARBON	390	5%	1/4W	
R854	1-247-104-00	CARBON	75	5%	1/4W	
R855	1-247-147-00	CARBON	4.7K	5%	1/4W	
R856	1-247-131-00	CARBON	1K	5%	1/4W	
R857	1-246-503-25	CARBON	18K	5%	1/4W	
R858	1-247-877-00	CARBON	82K	5%	1/6W	
R859	1-247-831-00	CARBON	1K	5%	1/6W	
R860	1-247-115-00	CARBON	220	5%	1/4W	
R861	1-247-147-00	CARBON	4.7K	5%	1/4W	
R862	1-247-831-00	CARBON	1K	5%	1/6W	
R863	1-247-835-00	CARBON	1.5K	5%	1/6W	
R864	1-247-115-00	CARBON	220	5%	1/4W	
R865	1-247-115-00	CARBON	220	5%	1/4W	
R866	1-247-835-00	CARBON	1.5K	5%	1/6W	
R867	1-247-835-00	CARBON	1.5K	5%	1/6W	
R868	1-247-831-00	CARBON	1K	5%	1/6W	
R869	1-247-115-00	CARBON	220	5%	1/4W	
R870	1-247-115-00	CARBON	220	5%	1/4W	
R872	1-247-115-00	CARBON	220	5%	1/4W	
R873	1-247-115-00	CARBON	220	5%	1/4W	
R874	1-247-823-00	CARBON	470	5%	1/6W	
R875	1-247-157-00	CARBON	12K	5%	1/4W	
R876	1-247-829-00	CARBON	820	5%	1/6W	
R879	1-247-823-00	CARBON	470	5%	1/6W	
R881	1-247-887-00	CARBON	220K	5%	1/6W	
R882	1-247-887-00	CARBON	220K	5%	1/6W	
R883	1-247-855-00	CARBON	10K	5%	1/6W	
R884	1-247-855-00	CARBON	10K	5%	1/6W	
R885	1-247-863-00	CARBON	22K	5%	1/6W	
R886	1-247-163-00	CARBON	22K	5%	1/4W	
R887	1-247-863-00	CARBON	22K	5%	1/6W	
R888	1-247-863-00	CARBON	22K	5%	1/6W	
R889	1-247-831-00	CARBON	1K	5%	1/6W	
R891	1-247-103-00	CARBON	68	5%	1/4W	
R895	1-247-155-00	CARBON	10K	5%	1/4W	
R896	1-247-155-00	CARBON	10K	5%	1/4W	

Ref.No.	Part No.	Description				Remark
R897	1-247-855-00	CARBON	10K	5%	1/6W	
R898	1-247-855-00	CARBON	10K	5%	1/6W	
R899	1-247-115-00	CARBON	220	5%	1/4W	
R900	1-247-107-00	CARBON	100	5%	1/4W	
R901	1-247-131-00	CARBON	1K	5%	1/4W	
R902	1-247-131-00	CARBON	1K	5%	1/4W	
R903	1-247-105-00	CARBON	82	5%	1/4W	
R904	1-247-105-00	CARBON	82	5%	1/4W	
R905	1-247-105-00	CARBON	82	5%	1/4W	
R906	1-247-105-00	CARBON	82	5%	1/4W	
R908	1-247-861-00	CARBON	18K	5%	1/6W	
R909	1-247-867-00	CARBON	33K	5%	1/6W	
R910	1-247-861-00	CARBON	18K	5%	1/6W	
R911	1-247-879-00	CARBON	100K	5%	1/6W	
R912	1-247-879-00	CARBON	100K	5%	1/6W	
R913	1-247-847-00	CARBON	4.7K	5%	1/6W	
R914	1-247-847-00	CARBON	4.7K	5%	1/6W	
R915	1-247-823-00	CARBON	470	5%	1/6W	
R916	1-247-823-00	CARBON	470	5%	1/6W	
R917	1-247-827-00	CARBON	680	5%	1/6W	
R918	1-247-835-00	CARBON	1.5K	5%	1/6W	
R919	1-247-855-00	CARBON	10K	5%	1/6W	
R921	1-247-831-00	CARBON	1K	5%	1/6W	
R922	1-247-131-00	CARBON	1K	5%	1/4W	
R923	1-247-871-00	CARBON	47K	5%	1/6W	
R924	1-247-871-00	CARBON	47K	5%	1/6W	
R925	1-247-893-00	CARBON	390K	5%	1/6W	
R926	1-247-855-00	CARBON	10K	5%	1/6W	
R928	1-247-831-00	CARBON	1K	5%	1/6W	
R929	1-247-131-00	CARBON	1K	5%	1/4W	
R930	1-247-131-00	CARBON	1K	5%	1/4W	
R931	1-247-131-00	CARBON	1K	5%	1/4W	
R932	1-247-879-00	CARBON	100K	5%	1/6W	
R934	1-247-879-00	CARBON	100K	5%	1/6W	
R938	1-246-485-25	CARBON	3.3K	5%	1/4W	
R939	1-247-837-00	CARBON	1.8K	5%	1/6W	
R940	1-247-879-00	CARBON	100K	5%	1/6W	
R941	1-247-131-00	CARBON	1K	5%	1/4W	
R942	1-247-104-00	CARBON	75	5%	1/4W	
R943	1-247-104-00	CARBON	75	5%	1/4W	
R944	1-247-104-00	CARBON	75	5%	1/4W	
R947	1-247-131-00	CARBON	1K	5%	1/4W	
R949	1-247-131-00	CARBON	1K	5%	1/4W	
R950	1-247-131-00	CARBON	1K	5%	1/4W	
R951	1-246-463-25	CARBON	390	5%	1/4W	
R952	1-246-463-25	CARBON	390	5%	1/4W	
R955	1-246-535-00	CARBON	390K	5%	1/4W	
R956	1-246-485-25	CARBON	3.3K	5%	1/4W	
R957	1-247-815-00	CARBON	220	5%	1/6W	
R958	1-246-485-25	CARBON	3.3K	5%	1/4W	
R959	1-247-815-00	CARBON	220	5%	1/6W	

Ref.No.	Part No.	Description				Remark
		VARIABLE RESISTOR				
RV801	1-228-848-00	RES, VAR, CARBON 10K				
RV802	1-228-490-00	RES, VAR, CARBON 10K				
		SWITCH				
S801	1-553-651-00	SWITCH, SLIDE				
S802	1-553-651-00	SWITCH, SLIDE				
		CONNECTOR				
U1	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P				
U2	*1-564-444-11	PLUG, CONNECTOR (2.5MM) 8P				
U3	*1-564-452-41	PLUG, CONNECTOR (2.5MM) 4P				
U4	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
U5	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
U6	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P				
U7	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P				
U8	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P				
U9	*1-564-453-11	PLUG, CONNECTOR (2.5MM) 5P				
U10	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P				
U11	*1-564-453-11	PLUG, CONNECTOR (2.5MM) 5P				
U13	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P				
**********						
	*A-1386-014-A	X BOARD, COMPLETE **********				
	4-309-378-00	SPACER				
		CAPACITOR				
C1101	1-123-318-00	ELECT	33MF	20%	16V	
C1102	1-123-356-00	ELECT	10MF	20%	16V	
C1103	1-123-318-00	ELECT	33MF	20%	16V	
C1104	1-123-356-00	ELECT	10MF	20%	16V	
C1105	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1106	1-123-356-00	ELECT	10MF	20%	16V	
C1107	1-123-356-00	ELECT	10MF	20%	16V	
C1108	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1109	1-106-196-00	MYLAR	0.01MF	10%	100V	
C1110	1-123-380-00	ELECT	1MF	20%	50V	
C1111	1-106-212-00	MYLAR	0.047MF	10%	100V	
C1112	1-106-196-00	MYLAR	0.01MF	10%	100V	
C1113	1-123-382-00	ELECT	3.3MF	20%	50V	
C1114	1-123-380-00	ELECT	1MF	20%	50V	
C1115	1-130-275-00	FILM	0.0012MF	5%	100V	
C1116	1-123-380-00	ELECT	1MF	20%	50V	
C1117	1-123-380-00	ELECT	1MF	20%	50V	
C1118	1-123-321-00	ELECT	220MF	20%	16V	
C1119	1-106-172-00	MYLAR	0.001MF	10%	100V	
C1120	1-106-188-00	MYLAR	0.0047MF	10%	100V	
C1121	1-102-112-00	CERAMIC	330PF	10%	50V	
C1122	1-123-369-00	ELECT	4.7MF	20%	25V	
C1123	1-123-380-00	ELECT	1MF	20%	50V	

Ref.No.	Part No.	Description				Remark
C1124	1-123-380-00	ELECT	1MF	20%	50V	
C1125	1-123-332-00	ELECT	47MF	20%	16V	
C1126	1-123-380-00	ELECT	1MF	20%	50V	
C1127	1-123-356-00	ELECT	10MF	20%	16V	
C1128	1-106-176-00	MYLAR	0.0015MF	10%	100V	
C1129	1-106-176-00	MYLAR	0.0015MF	10%	100V	
C1130	1-123-380-00	ELECT	1MF	20%	50V	
C1131	1-131-345-00	TANTALUM	0.47MF	10%	35V	
C1132	1-123-356-00	ELECT	10MF	20%	16V	
C1133	1-123-318-00	ELECT	33MF	20%	16V	
C1134	1-130-301-00	FILM	0.015MF	5%	100V	
C1135	1-123-323-00	ELECT	470MF	20%	16V	
C1136	1-123-332-00	ELECT	47MF	20%	16V	
C1137	1-123-332-00	ELECT	47MF	20%	16V	
C1148	1-123-308-00	ELECT	220MF	20%	10V	
C1149	1-123-381-00	ELECT	2.2MF	20%	50V	
C1150	1-123-381-00	ELECT	2.2MF	20%	50V	
C1151	1-123-369-00	ELECT	4.7MF	20%	25V	
C1152	1-123-369-00	ELECT	4.7MF	20%	25V	
C1153	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1154	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1155	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1156	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1157	1-123-323-00	ELECT	470MF	20%	16V	
C1160	1-106-212-00	MYLAR	0.047MF	10%	100V	
C1161	1-106-172-00	MYLAR	0.001MF	10%	100V	
C1162	1-106-172-00	MYLAR	0.001MF	10%	100V	
C1163	1-106-212-00	MYLAR	0.047MF	10%	100V	
C1164	1-123-356-00	ELECT	10MF	20%	16V	
C1165	1-123-380-00	ELECT	1MF	20%	50V	
C1166	1-102-824-00	CERAMIC	470PF	5%	50V	
C1167	1-123-380-00	ELECT	1MF	20%	50V	
C1168	1-102-824-00	CERAMIC	470PF	5%	50V	
C1169	1-123-356-00	ELECT	10MF	20%	16V	
C1170	1-123-360-00	ELECT	100MF	20%	50V	
C1171	1-124-607-11	ELECT	2200MF	20%	50V	
C1172	1-123-346-00	ELECT	220MF	20%	35V	
C1174	1-106-208-00	MYLAR	0.033MF	10%	100V	
C1175	1-123-364-00	ELECT	1000MF	20%	50V	
C1176	1-123-359-00	ELECT	47MF	20%	35V	
C1177	1-106-212-00	MYLAR	0.047MF	10%	100V	
C1178	1-106-212-00	MYLAR	0.047MF	10%	100V	
C1179	1-123-359-00	ELECT	47MF	20%	35V	
C1180	1-123-364-00	ELECT	1000MF	20%	50V	
C1181	1-106-208-00	MYLAR	0.033MF	10%	100V	
C1183	1-123-346-00	ELECT	220MF	20%	35V	
C1184	1-123-356-00	ELECT	10MF	20%	16V	
C1185	1-123-380-00	ELECT	1MF	20%	50V	
C1186	1-123-380-00	ELECT	1MF	20%	50V	
C1187	1-123-380-00	ELECT	1MF	20%	50V	
C1188	1-123-380-00	ELECT	1MF	20%	50V	
C1189	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1190	1-123-333-00	ELECT	100MF	20%	16V	

Ref.No.	Part No.	Description				Remark
C1200	1-130-281-00	FILM	0.0022MF	5%	100V	
C1201	1-131-343-00	TANTALUM	0.22MF	10%	35V	
C1202	1-131-343-00	TANTALUM	0.22MF	10%	35V	
C1203	1-130-281-00	FILM	0.0022MF	5%	100V	
C1204	1-131-345-00	TANTALUM	0.47MF	10%	35V	
C1205	1-130-309-00	FILM	0.033MF	5%	100V	
C1206	1-130-285-00	FILM	0.0033MF	5%	100V	
C1207	1-130-285-00	FILM	0.0033MF	5%	100V	
C1208	1-130-285-00	FILM	0.0033MF	5%	100V	
C1209	1-130-285-00	FILM	0.0033MF	5%	100V	
C1210	1-131-371-00	TANTALUM	10MF	10%	16V	
C1211	1-123-332-00	ELECT	47MF	20%	16V	
C1212	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C1213	1-130-297-00	FILM	0.01MF	5%	100V	
C1214	1-123-586-00	ELECT	0.1MF	20%	50V	
C1215	1-123-380-00	ELECT	1MF	20%	50V	
C1216	1-130-281-00	FILM	0.0022MF	5%	100V	
C1217	1-123-380-00	ELECT	1MF	20%	50V	
C1218	1-123-380-00	ELECT	1MF	20%	50V	
C1219	1-123-382-00	ELECT	3.3MF	20%	50V	
C1220	1-123-356-00	ELECT	10MF	20%	16V	
C1221	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C1222	1-123-380-00	ELECT	1MF	20%	50V	
C1223	1-131-368-00	TANTALUM	3.3MF	10%	16V	
C1224	1-123-369-00	ELECT	4.7MF	20%	50V	
C1225	1-123-356-00	ELECT	10MF	20%	16V	

DIODE

D1101	8-719-911-19	DIODE 1SS119	
D1102	8-719-911-19	DIODE 1SS119	
D1103	8-719-911-19	DIODE 1SS119	
D1104	8-719-911-19	DIODE 1SS119	
D1105	8-719-102-74	DIODE RD6.2E-N2	
D1106	8-719-102-74	DIODE RD6.2E-N2	

IC

IC1101	8-759-800-18	IC LA3375	
IC1102	8-759-271-33	IC TA7133P	
IC1103	8-759-145-58	IC UPC4558C	
IC1104	8-759-140-66	IC UPD4066BC	
IC1105	8-759-400-88	IC AN6291	
IC1106	8-759-140-66	IC UPD4066BC	
IC1107	8-759-907-16	IC CX10026	
IC1108	8-749-943-62	IC STK-4362	
IC1109	8-759-145-58	IC UPC4558C	

TRANSISTOR

Q1101	8-729-245-83	TRANSISTOR 2SC2458	
Q1102	8-729-245-83	TRANSISTOR 2SC2458	
Q1103	8-729-245-83	TRANSISTOR 2SC2458	
Q1104	8-729-204-83	TRANSISTOR 2SA1048GR	
Q1105	8-729-245-83	TRANSISTOR 2SC2458	
Q1106	8-729-245-83	TRANSISTOR 2SC2458	
Q1107	8-729-245-83	TRANSISTOR 2SC2458	
Q1108	8-729-204-83	TRANSISTOR 2SA1048GR	
Q1109	8-729-245-83	TRANSISTOR 2SC2458	
Q1110	8-729-245-83	TRANSISTOR 2SC2458	
Q1111	8-729-204-83	TRANSISTOR 2SA1048GR	
Q1112	8-729-204-83	TRANSISTOR 2SA1048GR	
Q1113	8-729-245-83	TRANSISTOR 2SC2458	
Q1114	8-729-245-83	TRANSISTOR 2SC2458	
Q1115	8-729-245-83	TRANSISTOR 2SC2458	
Q1116	8-729-245-83	TRANSISTOR 2SC2458	
Q1117	8-729-245-83	TRANSISTOR 2SC2458	
Q1118	8-729-245-83	TRANSISTOR 2SC2458	
Q1119	8-729-245-83	TRANSISTOR 2SC2458	
Q1120	8-729-245-83	TRANSISTOR 2SC2458	
Q1121	8-729-378-84	TRANSISTOR 2SD788	
Q1122	8-729-245-83	TRANSISTOR 2SC2458	
Q1123	8-729-245-83	TRANSISTOR 2SC2458	
Q1124	8-729-245-83	TRANSISTOR 2SC2458	

RESISTOR

R1101	1-247-831-00	CARBON	1K	5%	1/6W	
R1102	1-247-831-00	CARBON	1K	5%	1/6W	
R1103	1-247-867-00	CARBON	33K	5%	1/6W	
R1104	1-247-819-00	CARBON	330	5%	1/6W	
R1105	1-247-837-00	CARBON	1.8K	5%	1/6W	
R1106	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1107	1-247-867-00	CARBON	33K	5%	1/6W	
R1108	1-247-851-00	CARBON	6.8K	5%	1/6W	
R1109	1-247-859-00	CARBON	15K	5%	1/6W	
R1110	1-247-859-00	CARBON	15K	5%	1/6W	
R1111	1-247-849-00	CARBON	5.6K	5%	1/6W	
R1112	1-247-859-00	CARBON	15K	5%	1/6W	
R1113	1-247-839-00	CARBON	2.2K	5%	1/6W	
R1114	1-247-881-00	CARBON	120K	5%	1/6W	
R1115	1-247-863-00	CARBON	22K	5%	1/6W	
R1116	1-247-871-00	CARBON	47K	5%	1/6W	
R1117	1-247-853-00	CARBON	8.2K	5%	1/6W	
R1118	1-247-866-00	CARBON	30K	5%	1/6W	
R1119	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1120	1-247-891-00	CARBON	330K	5%	1/6W	
R1121	1-247-879-00	CARBON	100K	5%	1/6W	
R1122	1-247-839-00	CARBON	2.2K	5%	1/6W	
R1123	1-247-831-00	CARBON	1K	5%	1/6W	
R1124	1-247-857-00	CARBON	12K	5%	1/6W	
R1125	1-247-855-00	CARBON	10K	5%	1/6W	
R1126	1-247-855-00	CARBON	10K	5%	1/6W	
R1127	1-247-879-00	CARBON	100K	5%	1/6W	
R1128	1-215-433-00	METAL	3.3K	1%	1/6W	
R1129	1-215-433-00	METAL	3.3K	1%	1/6W	
R1130	1-247-879-00	CARBON	100K	5%	1/6W	
R1132	1-247-827-00	CARBON	680	5%	1/6W	
R1133	1-247-855-00	CARBON	10K	5%	1/6W	

X

Ref.No.	Part No.	Description				Remark
R1134	1-247-855-00	CARBON	10K	5%	1/6W	
R1135	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1136	1-247-803-00	CARBON	68	5%	1/6W	
R1137	1-247-835-00	CARBON	1.5K	5%	1/6W	
R1138	1-247-819-00	CARBON	330	5%	1/6W	
R1139	1-247-861-00	CARBON	18K	5%	1/6W	
R1140	1-247-851-00	CARBON	6.8K	5%	1/6W	
R1141	1-247-871-00	CARBON	47K	5%	1/6W	
R1142	1-247-871-00	CARBON	47K	5%	1/6W	
R1143	1-247-871-00	CARBON	47K	5%	1/6W	
R1144	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1145	1-246-485-25	CARBON	3.3K	5%	1/4W	
R1146	1-247-851-00	CARBON	6.8K	5%	1/6W	
R1147	1-247-861-00	CARBON	18K	5%	1/6W	
R1148	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1149	1-247-863-00	CARBON	22K	5%	1/6W	
R1150	1-215-486-00	METAL	510K	1%	1/6W	
R1151	1-214-785-00	METAL	220K	1%	1/4W	
R1152	1-215-469-00	METAL	100K	1%	1/6W	
R1153	1-214-777-00	METAL	100K	1%	1/4W	
R1154	1-214-785-00	METAL	220K	1%	1/4W	
R1155	1-215-493-00	METAL	1M	1%	1/6W	
R1156	1-215-493-00	METAL	1M	1%	1/6W	
R1157	1-246-529-00	CARBON	220K	5%	1/4W	
R1158	1-247-879-00	CARBON	100K	5%	1/6W	
R1159	1-247-886-00	CARBON	200K	5%	1/6W	
R1160	1-247-115-00	CARBON	220	5%	1/4W	
R1161	1-247-863-00	CARBON	22K	5%	1/6W	
R1162	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1163	1-247-851-00	CARBON	6.8K	5%	1/6W	
R1164	1-247-861-00	CARBON	18K	5%	1/6W	
R1165	1-247-848-00	CARBON	5.1K	5%	1/6W	
R1166	1-247-835-00	CARBON	1.5K	5%	1/6W	
R1167	1-247-833-00	CARBON	1.2K	5%	1/6W	
R1168	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1170	1-247-849-00	CARBON	5.6K	5%	1/6W	
R1171	1-247-777-00	CARBON	5.6	5%	1/8W	F
R1172	1-247-823-00	CARBON	470	5%	1/6W	
R1173	1-247-841-00	CARBON	2.7K	5%	1/6W	
R1174	1-247-829-00	CARBON	820	5%	1/6W	
R1175	1-247-839-00	CARBON	2.2K	5%	1/6W	
R1176	1-247-815-00	CARBON	220	5%	1/6W	
R1177	1-247-863-00	CARBON	22K	5%	1/6W	
R1180	1-247-855-00	CARBON	10K	5%	1/6W	
R1181	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1182	1-247-838-00	CARBON	2K	5%	1/6W	
R1183	1-247-838-00	CARBON	2K	5%	1/6W	
R1184	1-247-829-00	CARBON	820	5%	1/6W	
R1185	1-247-829-00	CARBON	820	5%	1/6W	
R1186	1-247-838-00	CARBON	2K	5%	1/6W	
R1187	1-247-879-00	CARBON	100K	5%	1/6W	
R1188	1-247-855-00	CARBON	10K	5%	1/6W	
R1189	1-247-855-00	CARBON	10K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R1190	1-247-811-00	CARBON	150	5%	1/6W	
R1191	1-247-823-00	CARBON	470	5%	1/6W	
R1192	1-247-855-00	CARBON	10K	5%	1/6W	
R1193	1-247-855-00	CARBON	10K	5%	1/6W	
R1194	1-247-855-00	CARBON	10K	5%	1/6W	
R1195	1-247-879-00	CARBON	100K	5%	1/6W	
R1196	1-247-879-00	CARBON	100K	5%	1/6W	
R1197	1-247-855-00	CARBON	10K	5%	1/6W	
R1199	1-247-879-00	CARBON	100K	5%	1/6W	
R1200	1-247-879-00	CARBON	100K	5%	1/6W	
R1203	1-247-831-00	CARBON	1K	5%	1/6W	
R1204	1-247-831-00	CARBON	1K	5%	1/6W	
R1205	1-247-831-00	CARBON	1K	5%	1/6W	
R1206	1-247-831-00	CARBON	1K	5%	1/6W	
R1207	1-247-831-00	CARBON	1K	5%	1/6W	
R1208	1-247-865-00	CARBON	27K	5%	1/6W	
R1210	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1211	1-247-879-00	CARBON	100K	5%	1/6W	
R1212	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1213	1-247-831-00	CARBON	1K	5%	1/6W	
R1214	1-247-879-00	CARBON	100K	5%	1/6W	
R1215	1-247-881-00	CARBON	120K	5%	1/6W	
R1216	1-247-893-00	CARBON	390K	5%	1/6W	
R1217	1-211-427-00	CARBON	100	5%	1/8W	F
R1218	1-247-825-00	CARBON	560	5%	1/6W	
R1220	1-247-859-00	CARBON	15K	5%	1/6W	
R1221	1-247-861-00	CARBON	18K	5%	1/6W	
R1222	1-211-401-00	CARBON	4.7	5%	1/8W	F
R1223	1-211-401-00	CARBON	4.7	5%	1/8W	F
R1224	1-247-831-00	CARBON	1K	5%	1/6W	
R1225	1-246-503-25	CARBON	18K	5%	1/4W	
R1226	1-247-859-00	CARBON	15K	5%	1/6W	
R1227	1-247-831-00	CARBON	1K	5%	1/6W	
R1229	1-247-825-00	CARBON	560	5%	1/6W	
R1230	1-247-879-00	CARBON	100K	5%	1/6W	
R1231	1-247-831-00	CARBON	1K	5%	1/6W	
R1232	1-247-831-00	CARBON	1K	5%	1/6W	
R1233	1-247-831-00	CARBON	1K	5%	1/6W	
R1234	1-247-831-00	CARBON	1K	5%	1/6W	
R1237	1-247-879-00	CARBON	100K	5%	1/6W	
R1241	1-247-855-00	CARBON	10K	5%	1/6W	
R1243	1-247-862-00	CARBON	20K	5%	1/6W	
R1245	1-247-867-00	CARBON	33K	5%	1/6W	
R1246	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1247	1-247-885-00	CARBON	180K	5%	1/6W	
R1248	1-247-885-00	CARBON	180K	5%	1/6W	
R1249	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1250	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1251	1-247-863-00	CARBON	22K	5%	1/6W	
R1252	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1253	1-247-865-00	CARBON	27K	5%	1/6W	
R1254	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1255	1-247-847-00	CARBON	4.7K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R1256	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1257	1-247-811-00	CARBON	150	5%	1/6W	
R1258	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1259	1-247-869-00	CARBON	39K	5%	1/6W	
R1260	1-247-893-00	CARBON	390K	5%	1/6W	
R1261	1-247-885-00	CARBON	180K	5%	1/6W	
R1262	1-247-844-00	CARBON	3.6K	5%	1/6W	
R1263	1-247-893-00	CARBON	390K	5%	1/6W	
R1288	1-247-848-00	CARBON	5.1K	5%	1/6W	
R1289	1-247-885-00	CARBON	180K	5%	1/6W	
R1290	1-247-811-00	CARBON	150	5%	1/6W	
R1291	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1292	1-247-831-00	CARBON	1K	5%	1/6W	
R1293	1-247-844-00	CARBON	3.6K	5%	1/6W	
R1294	1-247-887-00	CARBON	220K	5%	1/6W	
R1295	1-215-421-00	METAL	1K	1%	1/6W	
		VARIABLE RESISTOR				
RV1101	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K				
RV1102	1-228-723-00	RES, ADJ, CERAMIC CARBON 4.7K				
RV1103	1-228-720-00	RES, ADJ, CERAMIC CARBON 1K				
RV1104	1-228-722-00	RES, ADJ, CERAMIC CARBON 3.3K				
RV1106	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K				
RV1107	1-228-721-00	RES, ADJ, CERAMIC CARBON 2.2K				
RV1108	1-228-721-00	RES, ADJ, CERAMIC CARBON 2.2K				
RV1109	1-228-725-00	RES, ADJ, CERAMIC CARBON 22K				
RV1110	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K				
		TRANSFORMER				
T1101	1-235-386-11	FILTER, BAND PASS				
T1102	1-235-387-11	FILTER, BAND PASS				
T1103	1-235-400-11	FILTER, LOW PASS (L.P.F)				
T1104	1-231-726-00	FILTER, LOWPASS				
T1105	1-231-726-00	FILTER, LOWPASS				
		CONNECTOR				
X1	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P				
X2	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P				
X3	*1-508-765-00	3P PLUG (M)				
X4	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
X5	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P				
X6	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P				
X7	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
**********						
	*1-614-651-11	XA BOARD ********				
		CAPACITOR				
C1701	1-102-117-00	CERAMIC	820PF	10%	50V	
C1702	1-102-116-00	CERAMIC	680PF	10%	50V	
C1703	1-123-356-00	ELECT	10MF	20%	16V	
C1704	1-123-356-00	ELECT	10MF	20%	16V	

Ref.No.	Part No.	Description				Remark
		DIODE				
D1701	8-719-911-19	DIODE 1SS119				
		COIL				
L1701	1-408-242-00	MICRO INDUCTOR 10MMH				
		TRANSISTOR				
Q1701	8-729-245-83	TRANSISTOR 2SC2458				
Q1702	8-729-204-83	TRANSISTOR 2SA1048GR				
		RESISTOR				
R1701	1-247-839-00	CARBON	2.2K	5%	1/6W	
R1702	1-247-855-00	CARBON	10K	5%	1/6W	
R1703	1-247-847-00	CARBON	4.7K	5%	1/6W	
		CONNECTOR				
XA1	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
**********						
	*1-613-413-11	Z BOARD *******				
		JACK				
J001	1-507-806-00	JACK				
J002	1-507-940-21	JACK, AV				
J003	1-507-940-21	JACK, AV				
		RESISTOR				
R001	1-244-851-51	CARBON	120	5%	1/2W	
R002	1-244-851-51	CARBON	120	5%	1/2W	
		CONNECTOR				
Z1	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P				
Z2	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P				
Z3	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
Z4	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
**********						
		MISCELLANEOUS **********				
	⚠1-230-212-11	RESISTOR ASSY, HIGH-VOLTAGE				
	⚠1-417-125-11	SELECTOR, ANTENNA				
	⚠1-451-255-11	DEFLECTION YOKE (SY-164)				
	1-452-032-00	MAGNET, DISK; 10MM ø				
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ø				
	1-452-146-21	MAGNET, BMC				
	⚠1-452-315-21	CRT NECK ASSY (NA303)				
	*1-557-056-00	CABLE, P-P				
	⚠1-557-761-11	CORD, POWER				
L906	⚠1-426-059-31	COIL, DEGAUSSING				

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description	Remark
L907	⚠ 1-426-059-31	COIL, DEGAUSSING	
T901	⚠ 1-439-339-12	TRANSFORMER ASSY, FLYBACK	
V901	⚠ 8-736-651-05	CRT (A64JKJ10X)	

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ACCESSORIES AND PACKING MATERIALS
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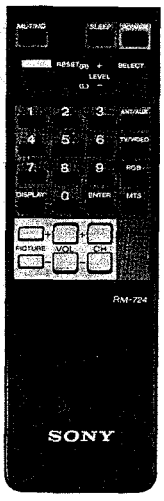
Part No.	Description	Remark
A-1470-681-A	COMMANDER ASSY(RM-724)	
1-513-379-00	CONVERTER (EAC-25)	
4-337-844-00	BAG, PROTECTION	
4-374-194-01	CUSHION (UPPER) (ASSY)	
4-374-195-01	CUSHION (LOWER) (ASSY)	
4-374-402-01	SHEET, CORRUGATED FIBERBOARD	
4-482-023-21	MANUAL, INSTRUCTION	
4-491-213-22	INSTRUCTION	
4-374-321-01	INDIVIDUAL CARTON (FOR BEIGE)	
4-374-324-01	INDIVIDUAL CARTON (FOR PLUM)	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

RM-724

SERVICE MANUAL



December, 1984

SPECIFICATIONS

Remote control system	Infrared control
Power requirements	3 V dc Battery size AA x 2 (IEC Battery Designation R6)
Dimensions	Approx. 55 x 20 x 175 mm (w/h/d) (2 1/8 x 7/8 x 6 7/8 inches)
Weight	Approx. 130 g (4.6 oz) incl. batteries
Accessories supplied	Battery size AA (2 pcs.)

Design and specifications subject to change without notice.

REMOTE COMMANDER

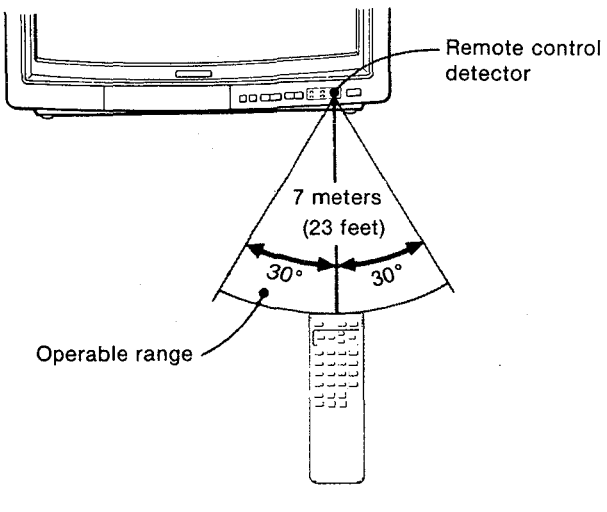
SONY®

REMOTE COMMANDER

1 Turn the Remote Commander face down, press the tab and lift the cover.
2 Place batteries in the Commander with the polarities in the correct directions, as illustrated inside the case.
3 Replace the cover.

Notes

- Use 2 size AA batteries (IEC designation R6).
- In normal operation, batteries will last up to half a year. If the set does not operate properly, the batteries might be exhausted. Replace all with new ones.
- To avoid damage from possible battery leakage, remove the batteries for extended unused periods.
- Be sure that there are no obstructions between the Commander and the TV.
- Operable range is limited.

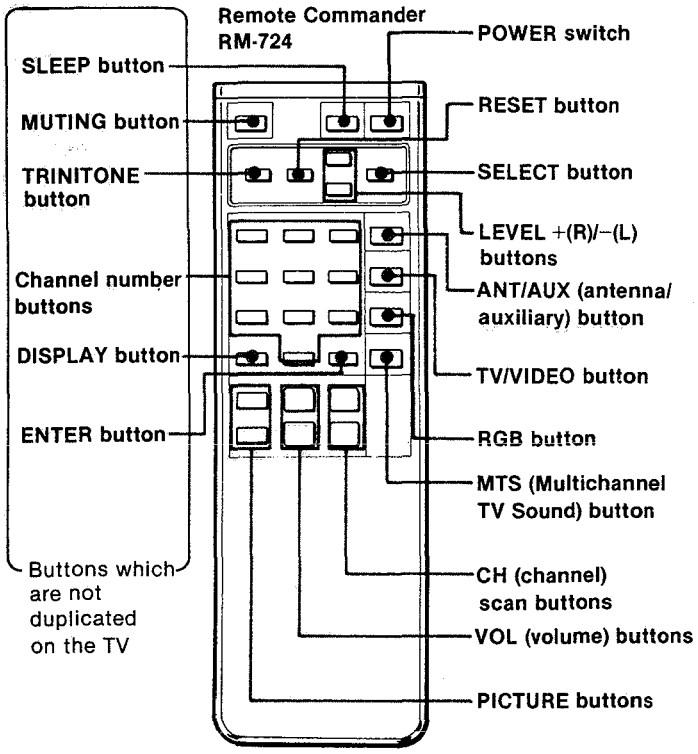


OPERATION

VIEWING TV PROGRAMS

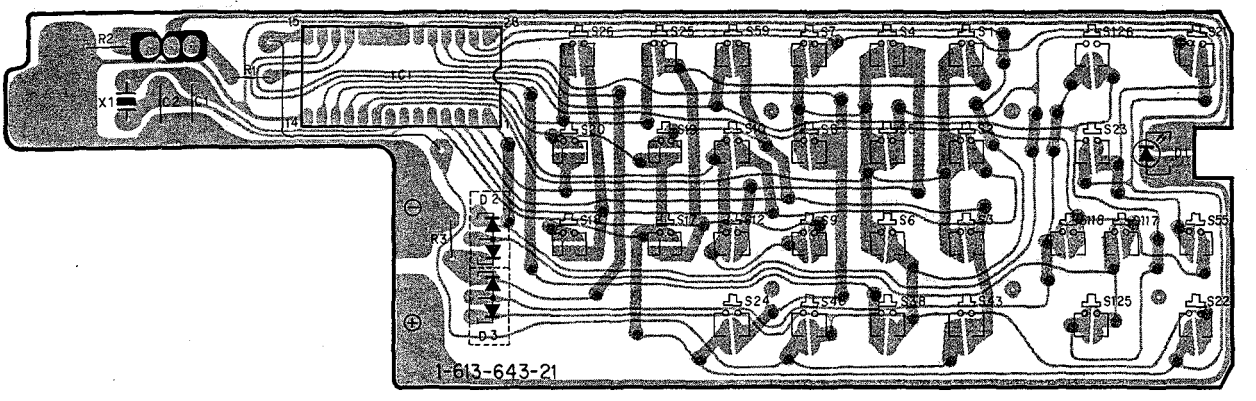
This TV set is capable of receiving normal VHF and UHF broadcasts plus cable TV channels. (See "Cable TV channel chart" below.)

Usually the Remote Commander is all that is needed to operate the TV set in everyday use.

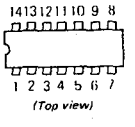


MOUNTING DIAGRAMS

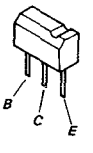
– Conductor Side –



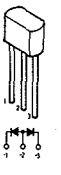
CX23040



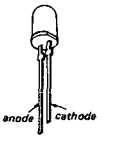
2SC1652



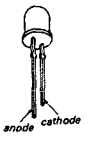
MC911



SE303AY



SLR-932A

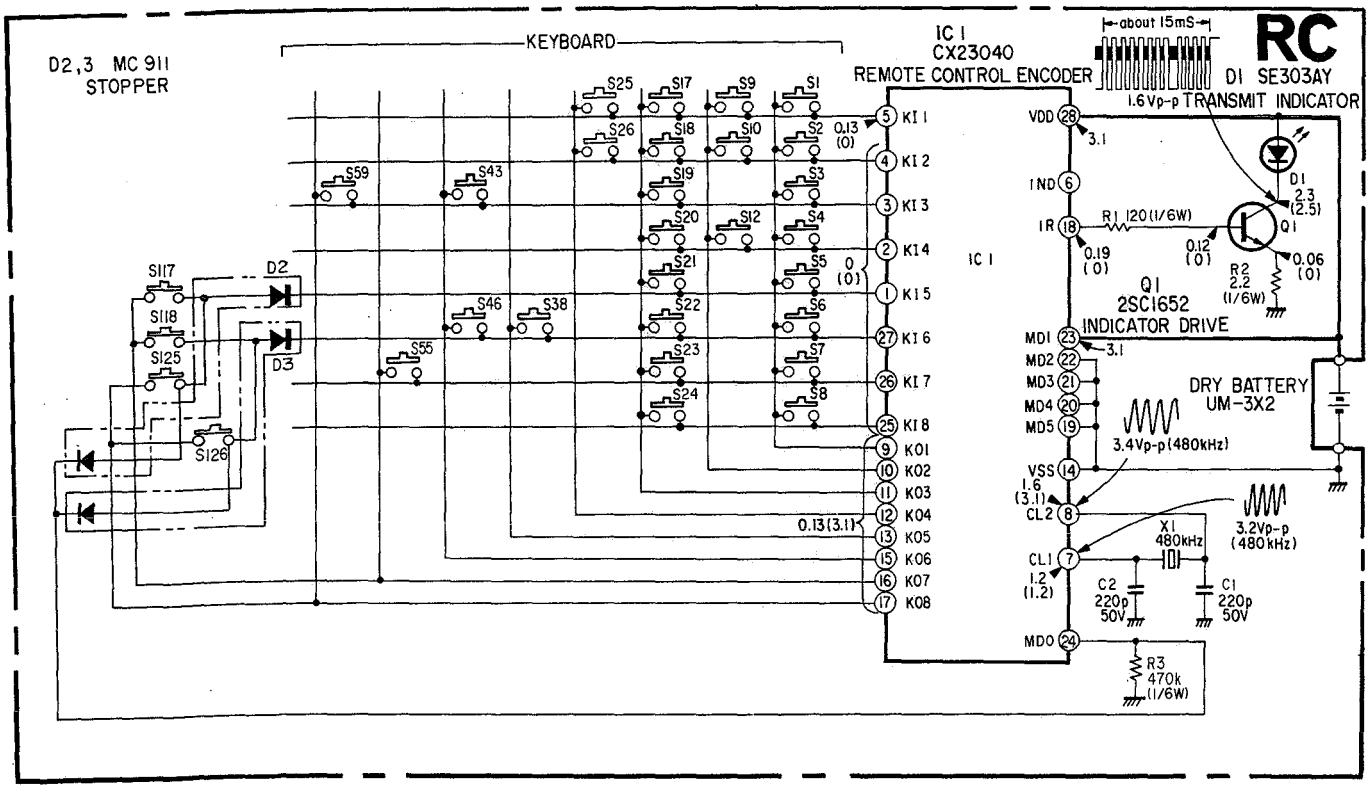


Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, 1/6W unless otherwise noted. kΩ = 1000Ω, MΩ = 1000kΩ
- Voltages and waveform are for when [1] button is pressed.
- Voltages in ( ) are taken with button not pressed.
- All voltages are in V.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- —— : B + bus.

8 | 9 | 10 | 11 | 12 | 13 | 14 | 15

SCHEMATIC DIAGRAM

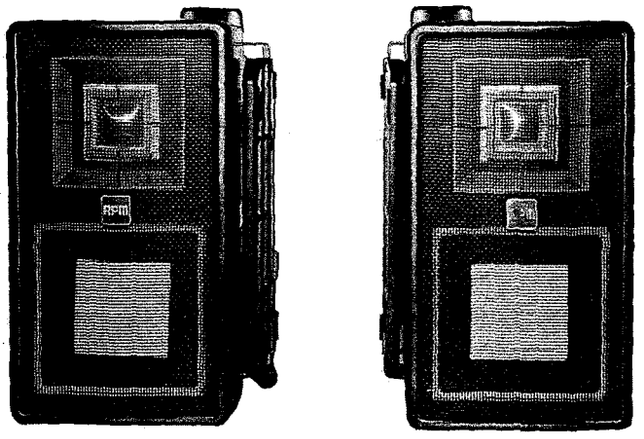


KEY MATRIX TABLE

	KO1		KO2		KO3		KO4		KO5		KO6		KO7		KO8			
KI1	S1	1	S9	9	S17	CH +	S25	PICTURE +	S33		S41		S49		S57		S117	LEVEL + (R)
KI2	S2	2	S10	0	S18	CH −	S26	PICTURE −	S34		S42		S50		S58		S118	LEVEL − (L)
KI3	S3	3	S11		S19	VOL +	S27		S35		S43	ANT/AUX	S51		S59	DISPLAY	S125	SELECT
KI4	S4	4	S12	ENTER	S20	VOL −	S28		S36		S44		S52		S60		S126	TRINITONE
KI5	S5	5	S13		S21	MUTING	S29		S37		S45		S53		S61			
KI6	S6	6	S14		S22	POWER	S30		S38	TV/VIDEO	S46	R G B	S50		S62			
KI7	S7	7	S15		S23	RESET	S31		S39		S47		S55	SLEEP	S63			
KI8	S8	8	S16		S24	MTS	S32		S40		S48		S56		S64			

APM-X3U

SERVICE MANUAL



December, 1984

SPECIFICATIONS

Side-mounting speakers (Weight approx. 1.5 kg each)with speaker cords .....1 pair
35 cm^2 (5.4 in^2), APM unit
55 cm^2 (8.5 in^2), Bass radiator unit

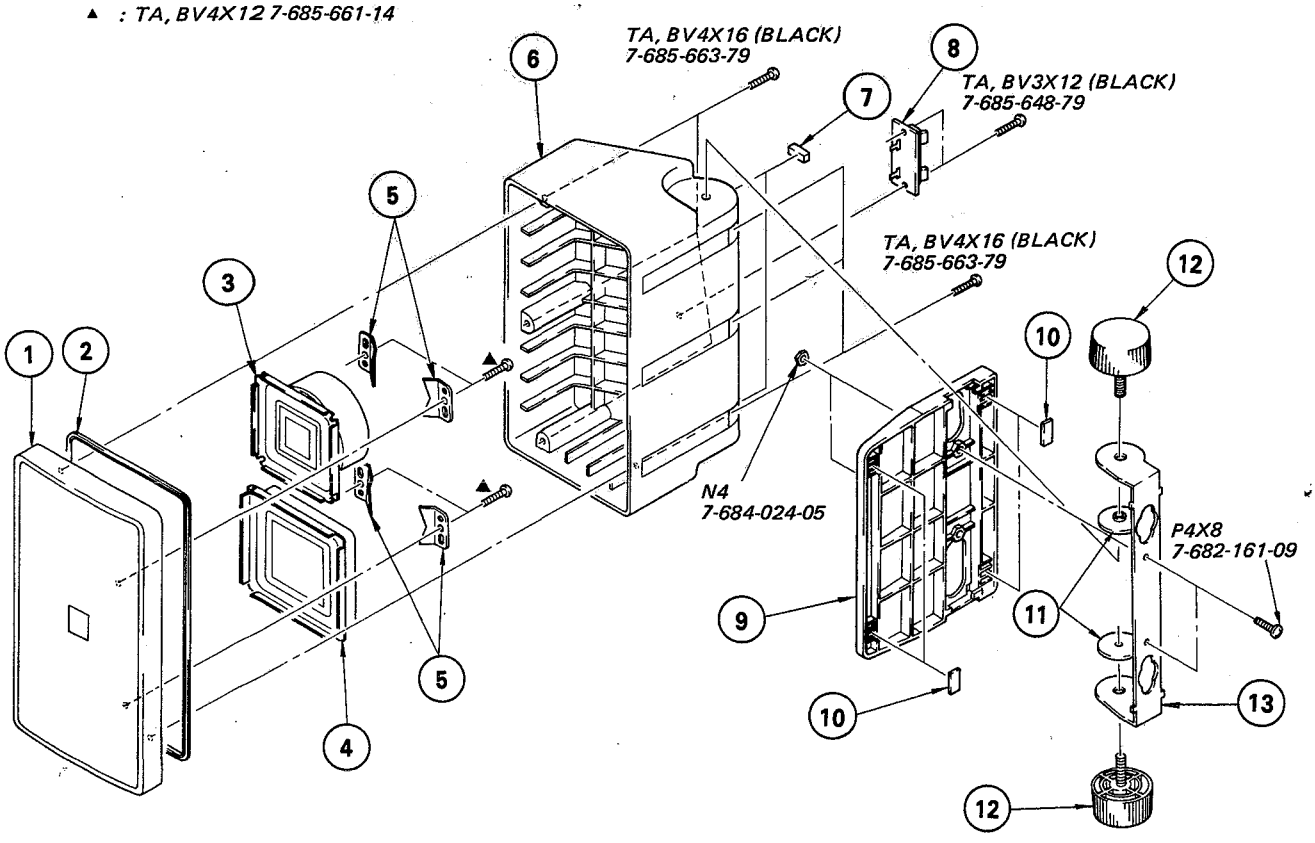
SPEAKER SYSTEM

SONY®

EXPLODED VIEW

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

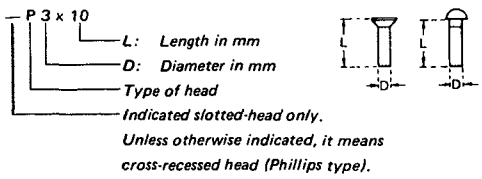
▲ : TA, BV4X12 7-685-661-14



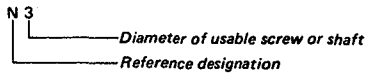
No.	Part No.	Description	Remark
1	X-4907-701-1	BOARD ASSY, BAFFLE	
2	*4-907-707-01	RUBBER, SHIELD	
3	8-927-199-00	048A008	
4	8-927-189-00	SPEAKER UNIT (060P001)	
5	4-907-702-11	HOLDER, SP	
6	4-907-710-01	CABINET	
7	9-911-847-XX	SPACER, HOLE	
8	1-536-881-11	THERMINAL BOARD (SPEAKER)	
9	4-907-709-01	BASE	
10	4-907-703-02	CUSHION,LEG	
11	4-907-705-01	SPACER	
12	4-907-701-01	SCREW (A), ORNAMENTAL	
13	*4-907-706-01	BRACKET, CABINET	

HARDWARE NOMENCLATURE

Screw:



Nut, Washer, Retaining ring:



Reference Designation	Shape	Description	Remarks
		SCREWS	
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
		SELF-TAPPING SCREWS	
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
		SET SCREWS	
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
		NUT	
N		nut	
		WASHERS	
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
		RETAINING RINGS	
E		retaining ring	
G		grip-type retaining ring	

Sony Corporation
TV Group

9-963-333-01

English
87JH0207-2
Printed in Japan
© 1984

KV-25XBR
RM-724/APM-X3U

SONY®
SERVICE MANUAL

US Model
Chassis No. SCC-595B-A
May,1985
No. 1

SUPPLEMENT

SUBJECT: CIRCUIT MODIFICATIONS

File the supplement with the service manual.

TABLE OF CONTENTS

Section	*Title*	*Page*
1. GENERAL		
	Set-up	2
5. DIAGRAMS		
	Schematic Diagrams	3
	Semiconductors	8
7. ELECTRICAL PARTS LIST		18

MICROFILM

CTV

SECTION 1
GENERAL

SET-UP

LISTENING TO MULTICHANNEL TV SOUND(MTS) BROADCASTS

In the years to come, an increasing number of programs will be broadcast in stereo. Called Multichannel TV Sound or MTS, the new technology will greatly enhance TV viewing by bringing you programs with high fidelity stereo sound. MTS also provides for an extra channel called the Second Audio Program or SAP which broadcasters can use to transmit a second language for bilingual transmissions or some other sound track.

To receive a stereo program
Normally set the AUTO STEREO selector to ON (depressed). In this position, the STEREO lamp on the TV will light up whenever a stereo broadcast is received. To listen to the stereo sound, select the MAIN mode with the MTS button so that the on-screen MAIN indicator appears. The stereo sound will be heard from the left and right speakers.

Every push on the MTS button changes the indicator below the channel number as follows:

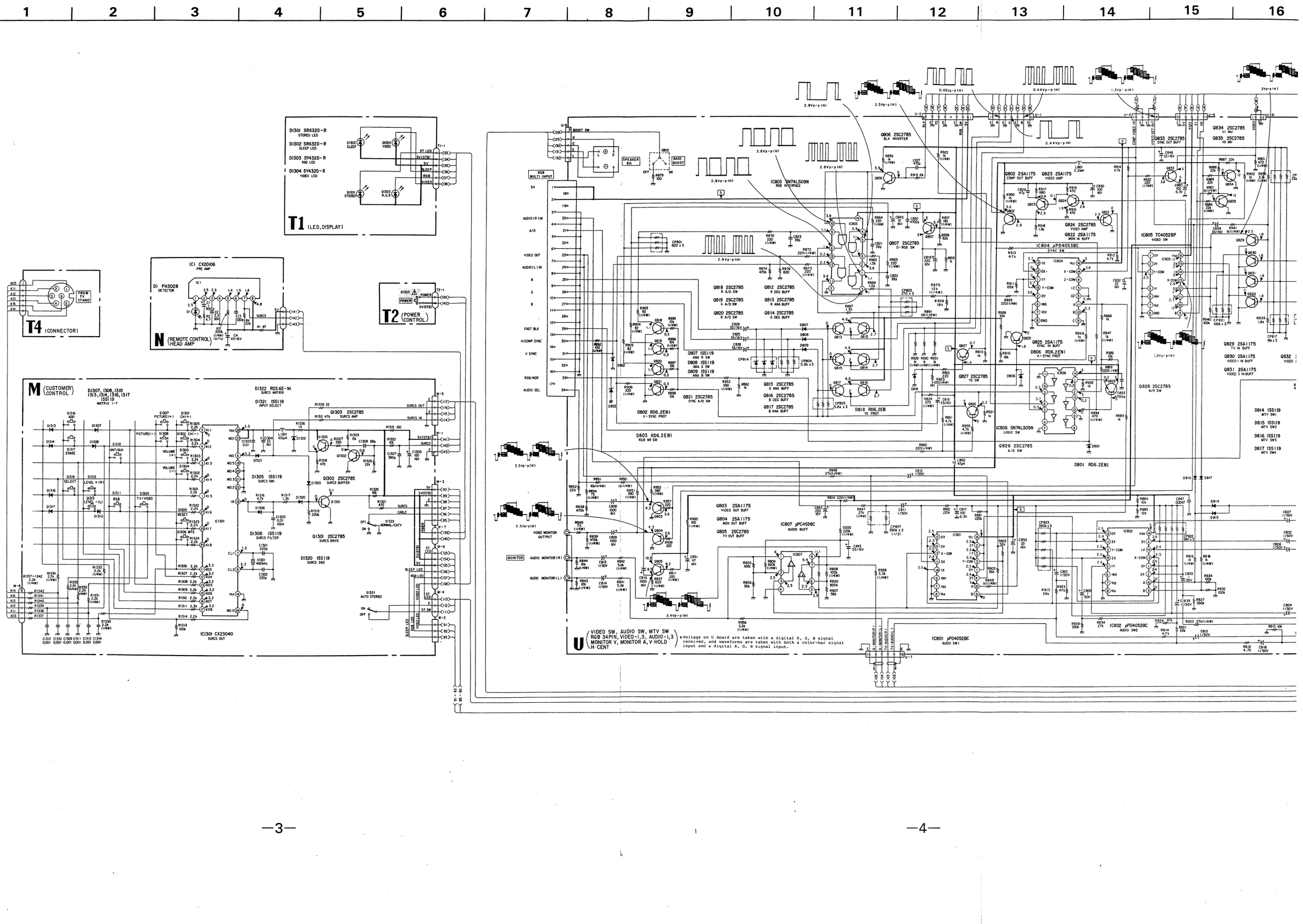
MAIN → SAP → BOTH

When there is a SAP (Second Audio Program) broadcast
Select the SAP mode so that the SAP indicator will be displayed and only the SAP sound will be heard from both speakers.

To listen to both MAIN and SAP broadcasts
Select the BOTH mode so that the BOTH indicator is displayed. The MAIN and SAP sounds will come out from the left and right speakers respectively.
The MAIN sound becomes monaural(mixed) even if it is a stereo broadcast, as the sound comes only from the left speaker.

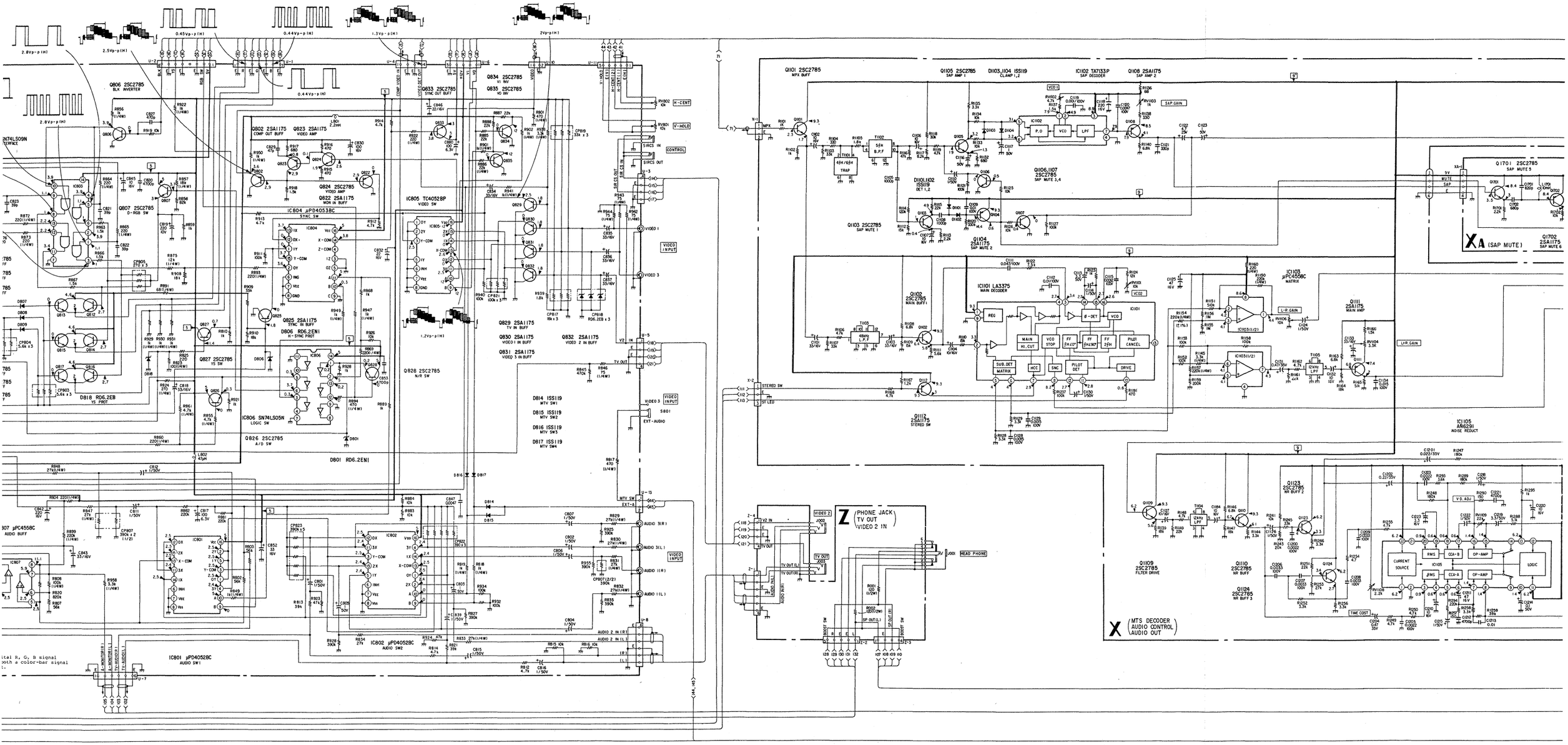
Notes
- The selected mode will be retained even after the power has once been turned off.
- There may be cases of stereo broadcasts where excessive "noise" will be heard due to a weak incoming signal. By switching the AUTO STEREO selector to OFF and returning to a monaural mode, the noise should be eliminated.

5-1. SCHEMATIC DIAGRAMS



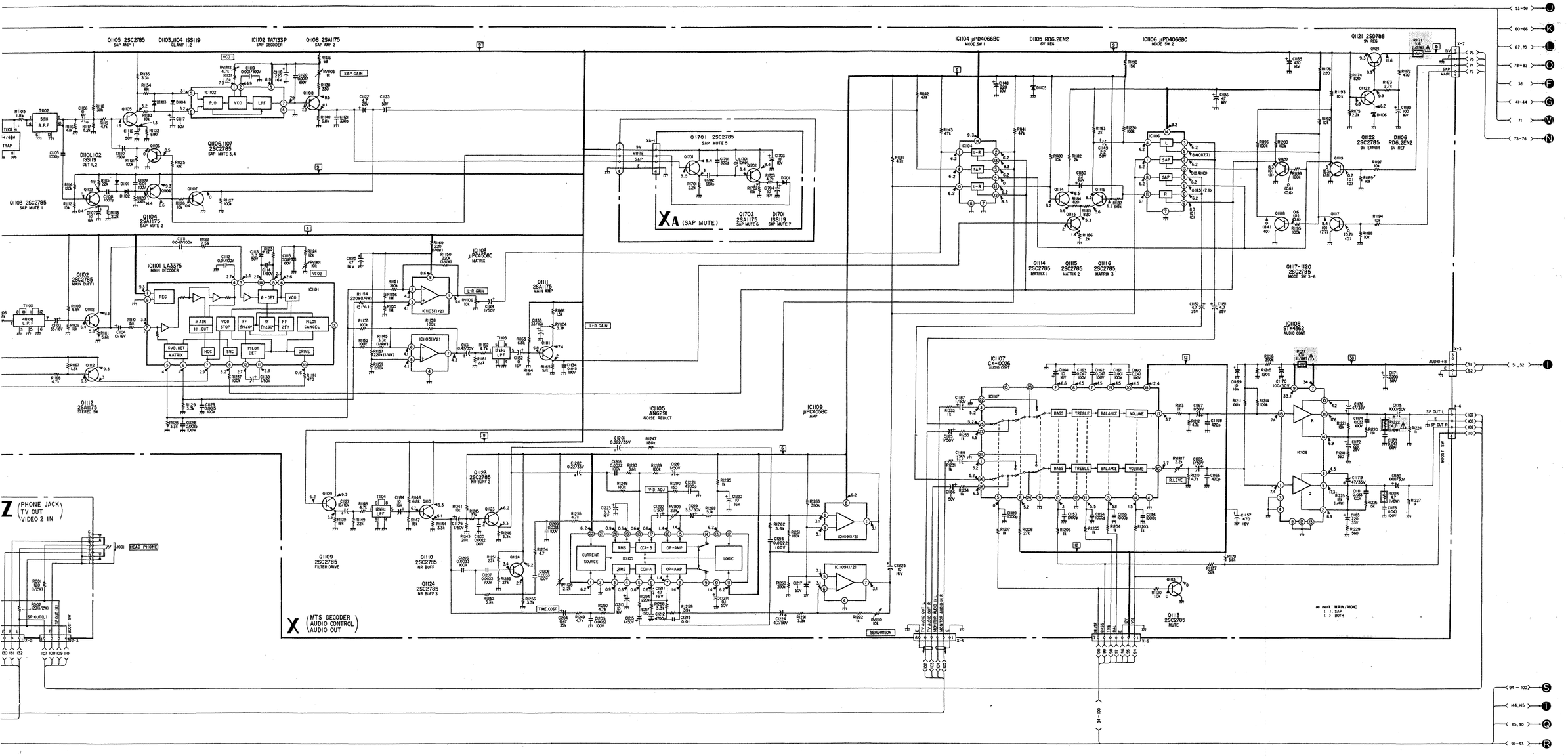
KV-25XBR
RM-724/APM-X3U

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26



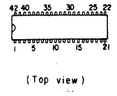
KV-25XBR
RM-724/APM-X3U
KV-25XBR
RM-724/APM-X3U

19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34



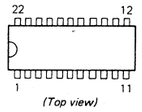
5-2. SEMICONDUCTORS

AN6291
CX530-507N
CX-848



(Top view)

CX-7958
μPC1377C

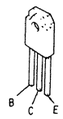


(Top view)

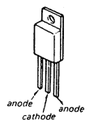
TA7133P

2SA733
2SC1363

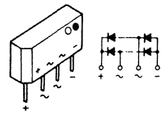
2SD1497



CTL-12S
CTU-24S



S1VB10-S
S1VB20



AN78L05
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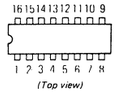
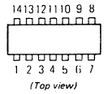
TC4052BP
TC4053BP
TDA1082
μPD4052BC
μPD4053BC
μPD6326C



(Top view)

CXK1001P

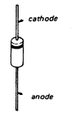


(Top view)

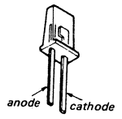
TL4558P-B
μPC4558C

2SB734
2SC2958
2SC2959
2SD774

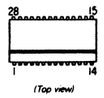
EM-1ZS
RM2CS



SR632D

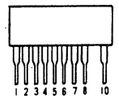


CX10026

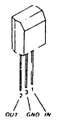


(Top view)

DM-21



μPC78L05A



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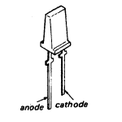
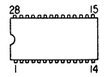
2SD788
2SD789

ERC26-15S

SY432D

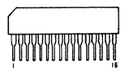


CX20014A
CX20100
CX20125
CX526-025

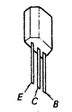


(Top view)

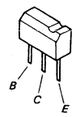
LA3375



2SA1026

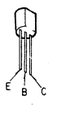


2SC1652



2SA1048
2SA1115
2SC2458
2SC2603
2SC2669

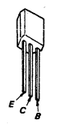
2SC2901



CX20106

LA7910

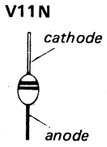
2SA1175
2SC2785
2SC2785F



2SC3163
2SC3317

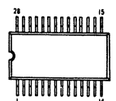
10E2
EQA02-12B5
EQA02-32A
ES1F
GP08D
HZT33-02
RGP01-17

EM-1ZS
RM2CS



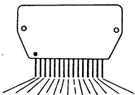
PH302B

CX23040

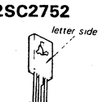


(Top view)

STK-4362



2SA1220A
2SC2611
2SC2690A
2SC2752



2SD1406
2SD880

1S1555
EQA02-05A5
EQA02-05F5
EQA02-06A5
EQA02-06D5
EQA02-10B5
RD10EN3
RD13EN2
RD24EBZ7
RD33EB2
RD33EB3
RD3.6E-N1
RD3.6E-N2
RD3.9EN2
RD4.7EN2
RD5.6EB2
RD5.6EBZ7S
RD5.6EL2
RD5.6EN1
RD5.6EN2
RD5.6EN3
RD6.2EN1
RD6.2EN2
RD6.2EN3
RD6.2E-B

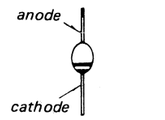
ERD29-08J

GH3F
GU-3A
U05E
U05G
V11N

1SS119
1SS120
1SS133
1SS148

RH-1A
RH-1Z
RU-2M
SIB01-02

V19E



CX20139
SN74LS05N
SN74LS09N
TC4066BP
TC4071BP
μPD4066BC
μPD4071BC

(Top view)

NJM78L05A

2SA1175
2SC2785
2SC2785F

2SC3163
2SC3317

1SS119
1SS120
1SS133
1SS148

RH-1A
RH-1Z
RU-2M
SIB01-02

CX20106

(TOP VIEW)

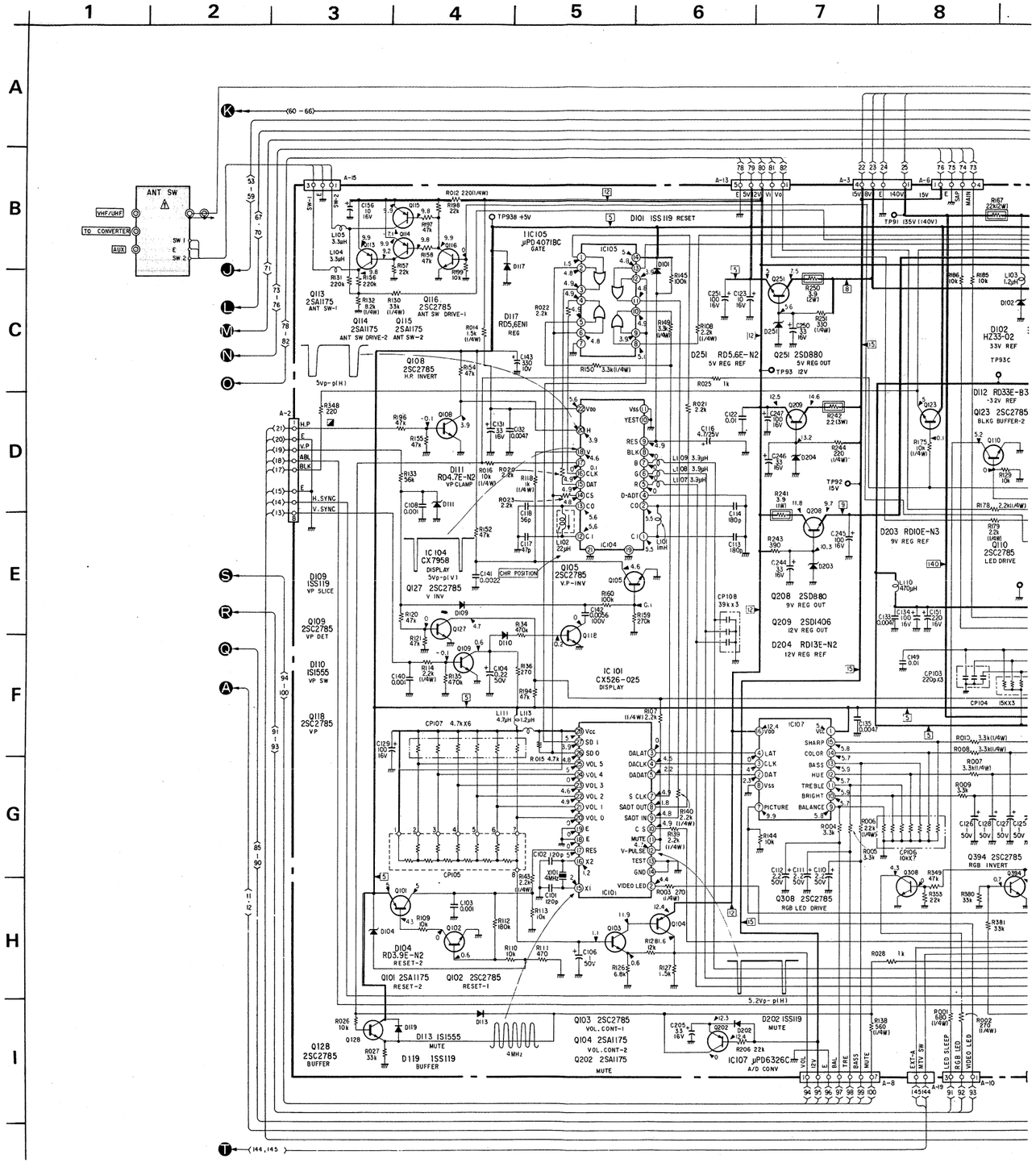
LA7910

(Marking side view)

2SA1220A
2SC2611
2SC2690A
2SC2752

2SD1406
2SD880

KV-25XBR
RM-724/APM-X3U



CHANNEL	VOLTAGE
VHF CH2-A-3	2V-22V
VHF CHA-2-13	2V-23V
VHF CHJ-W+58	1.5V-25V
UHF CH14-83	1.3V-27V

MEASURED USING VTVM

12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

CHANNEL	VOLTAGE
VHF CH2-A-3	2V-22V
VHF CHA-2-13	2V-23V
VHF CH J-W+58	1.5V-25V
UHF CH14-83	1.3V-27V

MEASURED USING VTVM

A (VIF,SIF,Y CHROMA,RGB.SW,BAND.SW) (PLL CONTROLLER , DISPLAY)

Q201 2SC2669 IF-AMP
IC201 CX20014A VIF, SIF
Q303 2SC2785 CHRMA BUFFER
Q304 2SC2785 Y BUFFER-3
Q305 2SC2785 Y BUFFER-4
IC202 CX20139 PLL DET
Q124 2SC2785 SYNC SEP BUFFER
D408,409 ISS119 T.CONTROL-2,3
Q417 2SC2785 DC SW-1
Q423 2SA1175 B DET-2
Q418 2SC2785 R BUFFER-2
Q419 2SC2785 D.C SW-2
Q424 2SA1175 G DET-2
Q416 2SA1175 CURRENT SOURCE-3
Q420 2SA1175 R DET-1
Q404 2SA1175 CURRENT SOURCE-4
Q414 2SA1175 CURRENT SOURCE-2
Q421 2SA1175 G DET-1
Q405 2SA1175 B CONT-1
Q422 2SA1175 B DET-1
Q406 2SA1175 B CONT-2
Q407 2SA1175 R BUFFER-1
Q429 2SA1175 R DET-2
IC102 LA7910 BAND SW
IC106 CXK1001P MEMORY
D205 ISS119 AGC
Q201 2SC2785 FM TRAP
Q106 2SC2785 RESET-1
Q107 2SA1175 RESET-2
D103 RD3.9E-N2 RESET-1
Q311 2SC2785 Y BUFFER-2
Q310 2SC2785 Y BUFFER-1
Q309 2SC2785 Y AMP
Q204 2SC2785 HOOK UP-1
Q205 2SA1175 HOOK UP-2
Q206 2SC2785 HOOK UP-3
Q207 2SC2785 HOOK UP-4
D407 ISS119 T.CONTROL-1
IC402 MCI4053BCP N.D.C SW
IC403 μPC4558C R.BIA.SS
D402-D405 ISS119 PROTECT-2,3,4,5
Q301 2SC2785 VIDEO BUFFER
Q302 2SC2785 VIDEO AMP
D406 ISS119 PROTECT-6
IC302 CX20125 PEDESTAL CLAMP
D411 ISS119 PIX MUTE
Q430 2SA1175 PIX CONT
Q411,412,413 2SA1175 R-G-B BUFFER
IC203 UPC78L05A 5V REG OUT
IC301 CX848 Y. CHROMA
IC401 CX20100 RGB SW
Q307 2SC2785 VM AMP-1
Q306 2SC2785 BAND PASS AMP
Q403 2SA1175 PIX CONT
Q408 2SC2603 ABL AMP
Q409 2SC2603 R.D BUFFER
Q410 2SC2603 G.D BUFFER
Q431 2SC2603 B.D BUFFER
Q432 2SA1175 SUB BRT BUFFER
Q428 2SC2603 B DRIVE
Q427 2SC2603 G DRIVE
Q426 2SC2603 R DRIVE

KV-25XBR
RM-724/APM-X3U

CAUTION
When replacing IC651, be sure to check the test point voltage value (TP91). Refer to the Safety Adjustments Section.

CAUTION
This set is equipped with a polarized ac power cord plug (one blade of the plug is wider than the other). When replacing the ac power cord, be sure to connect it with specified part number as shown in this diagram.

GB (140V REG, 140V RECT, 16V RECT, 8V RECT, 30V RECT)

IC651 DM2I MODULE
D655 CTU-24S 140V RECT
D658 CTL-12S 30V RECT
D656 CTL-12S 16V RECT
D661 RU-2M 8V RECT
D657 RU-2M 8V RECT

GA (CONVERTER)

Q651 2SC3163 CONVERTER
Q652 2SC3163 CONVERTER
D651 RM2CS PROTECT
D652 V-19E DAMPER
D653 RM2CS PROTECT
D654 V19E DAMPER

D (POWER SUPPLY, H.DEF. V. DET. HV OSC PIN CORRECTION, DYNAMIC CONVERGENCE, DYNAMIC FOCUS)

IC1501 μPC1377C JUNGLE
Q1501 2SA1175 V.SYNC. AMP
Q1510 2SA1175 BUFFER
D1501 ISS119 H.OSC LIMIT
D1507 RD5.6E-BZ7S HV.PROT REF
D1504 GP08D BACK UP
Q1503 2SC2785 HV.PROTECT 2
Q1502 2SC2785 HV.PROTECT 1
D622 U05E AC RECT-1
D621 SIB01-02 RELAY PROTECT
D623 U05E AC RECT-2
Q602 2SC1652 RELAY DRIVE
D605 GP08D -40V RECT-2
D606 ISS119 -40V RECT-1
D607 ISS119 -40V RECT-3
D609 SIVB10-S 18V RECT
Q603 2SD1406 5V REG
D610 RD5.6E-N3 5V REG
AC FILTER

Q1511 2SC2785 PARAB SHAPE
Q1509 2SC2958 V. DRIVE
Q1508 2SA1220A V.OUT-2
Q1507 2SC2690A V. OUT-1
Q1506 2SA1175-E EVP
D1516 SIB01-02 DY.CON AMP-1 V.OUT BIAS 1
D1511 ISS119 V.BLANKING
Q1504 2SC2785 BLANKING
D1503 RD5.6E-B2 H.BLK SLICE
D1502 RD24E-BZ7 HV.PROT REG
D1508 RD5.6EL2 EVP.REF
D1509 IT40 EVP.COMPEN
Q1525 2SC2785 V.OSC REG
D1502 ISS119 V.OUT BIAS 2
IC1502 TDA1082 E-W PIN.MOD
Q1527 2SC2752 H. DRIVE
Q1528 2SD1497-06 H.OUT
D1655 ERC26-15S H.OUT DAMP-1
D1656 ERC26-15S H.OUT DAMP-2
D1657 ERD29-08J PIN DAMPER

: See page23
: See page23

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 2

CAUTION
When replacing HVR, be sure to check the HOLD DOWN check point voltage value. Refer to the Safety Adjustment Section of the Service Manual.

CAUTION
Be sure to connect the con

: See page23

: See page23

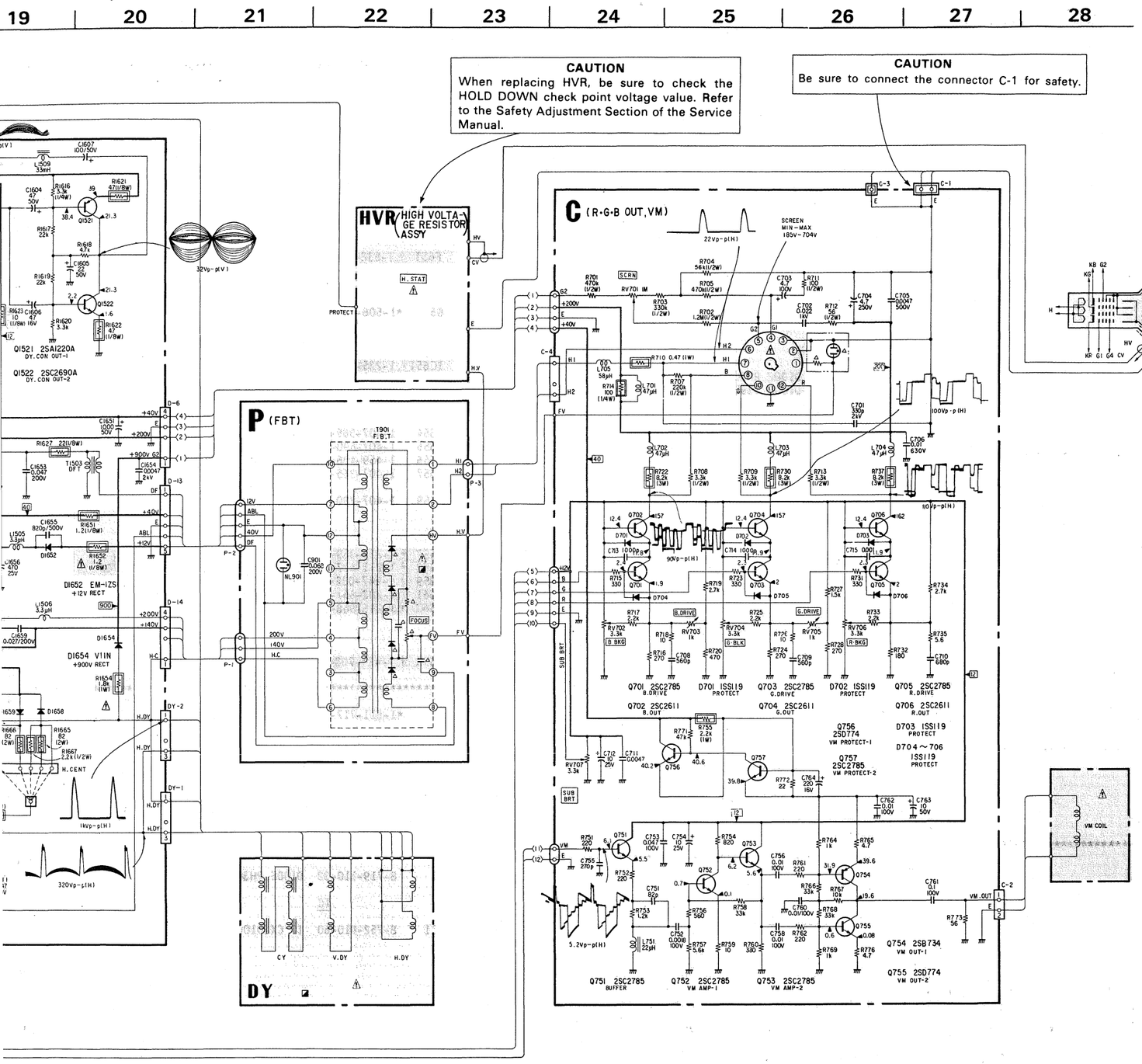
HVR (HIGH VOLTAGE RESISTOR) ASSY

C (R·G·B OUT, VM)

P (FBT)

DY

KV-25XBR
RM-724/APM-X3U



Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- All Capacitors are in μF unless otherwise noted, pF: μμF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, 1/6W unless otherwise noted.
  kΩ = 1000Ω, MΩ = 1000kΩ
- Standard for the M Board is 1/4W.
- ▭ : nonflamable resistor.
- △ : internal component.
- ▭ : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪ mark the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⊠ and repeat the adjustment until the specified value is achieved.
  (Refer to R1531, R1534, R1535, R1556, R1578, adjustment on page 23.)
  When replacing the part in below table, be sure to perform the related adjustment.

Part replaced (◪)	Adjustment (⊠)
D1502, D1507, IC1501 Q1502, Q1503, R427 R431, R437, R438 R1512, R1519, R1529 R1530, R1531, R1532 R1533, R1543, R1544 R1545	R1531
D1508, D1509, IC301 IC401, Q1506, R339 R340, R348, R436 R1534, R1535, R1537 R1538, R1539, R1561 R1576	R1534, R1535
C1663, C1664, C1667 C1675, IC1502, L1514 R1556, R1570, R1635 R1636, R1638, RV1511 FBT, DY	R1556
C1519, C1663, C1664 C1667, C1675, IC1501 L1514, R1522, R1578 R1579, R1580, R1581 R1582, R1583, RV1503 FBT, DY	R1578

- All voltages are in V.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- ——: B+ bus.
- – – – : B – bus.
- Voltage variations may be noted due to normal production tolerances.
- ▭: adjustment for repair.

KV-25XBR
RM-724/APM-X3U

T1 T2 P T4

SECTION 7
ELECTRICAL PARTS LIST

GA GB

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

• Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

When indicating parts by reference number, please include the board name.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS
• MF : μF, PF : μμF

RESISTORS
• All resistors are in ohms
• F : nonflammable

COILS
• MMH : mH, UH : μH

• **The components identified by ◘ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.**

Ref.No.	Part No.	Description			Remark
	*1-613-420-21	T1 BOARD ********			
	*4-345-701-00	HOLDER, LED			
		DIODE			
D1301	8-719-106-34	DIODE SR632D			
D1302	8-719-106-34	DIODE SR632D			
D1303	8-719-114-34	DIODE SY432D			
D1304	8-719-114-34	DIODE SY432D			
**********					
	*1-613-421-11	T2 BOARD ********			
		SWITCH			
S1323⚠	1-554-303-11	SWITCH, KEY BOARD			
**********					
	*1-613-414-11	P BOARD *******			
		CAPACITOR			
C901	1-108-431-00	MYLAR	0.068MF	10% 200V	
		NEON LAMP			
NL901	1-519-237-11	LAMP, NEON			
**********					
	*1-613-422-11	T4 BOARD ********			
	1-562-684-11	SOCKET, DIN 6P			
**********					
	*1-613-423-11	GA BOARD ********			
	4-374-104-01	HOLDER, TR			
	4-374-108-01	SPACER, MICA			
		CAPACITOR			
C651	1-102-038-00	CERAMIC	0.001MF	500V	
C652	1-136-103-00	FILM	0.1MF	5% 200V	
C653	1-102-038-00	CERAMIC	0.001MF	500V	
C654	1-136-103-00	FILM	0.1MF	5% 200V	
C655	1-136-131-00	FILM	0.12MF	5% 400V	
C671	1-136-120-00	FILM	0.22MF	5% 400V	
C672	1-102-038-00	CERAMIC	0.001MF	500V	
C673	1-102-038-00	CERAMIC	0.001MF	500V	
C675	1-102-038-00	CERAMIC	0.001MF	500V	
C677	1-102-038-00	CERAMIC	0.001MF	500V	

Ref.No.	Part No.	Description			Remark
C679A	1-106-359-00	MYLAR	0.0047MF	10% 200V	
C680	1-102-030-00	CERAMIC	330PF	10% 500V	
C681	1-102-030-00	CERAMIC	330PF	10% 500V	
		DIODE			
D651	8-719-301-18	DIODE RM2CS			
D652	8-719-901-93	DIODE V19E			
D653	8-719-301-18	DIODE RM2CS			
D654	8-719-901-93	DIODE V19E			
		CONNECTOR			
G4	*1-508-765-00	3P PLUG (M)			
		COIL			
L651	1-425-612-00	COIL, ARE-CORE			
L652	1-425-612-00	COIL, ARE-CORE			
L660	1-425-612-00	COIL, ARE-CORE			
L661	1-425-612-00	COIL, ARE-CORE			
		TRANSISTOR			
Q651⚠	8-729-902-00	TRANSISTOR 2SC3163			
Q652⚠	8-729-902-00	TRANSISTOR 2SC3163			
		RESISTOR			
R651⚠	1-214-597-61	METAL OXIDE	100K	5% 2W F	
R653	1-202-637-00	SOLID	470K	5% 1/2W	
R655⚠	1-206-439-61	METAL OXIDE	1	5% 2W F	
R656	1-206-439-00	METAL OXIDE	1	5% 2W F	
R660	1-202-637-00	SOLID	470K	5% 1/2W	
R662⚠	1-207-451-11	WIREWOUND	0.1	10% 1/2W	
		TRANSFORMER			
T651⚠	1-421-695-11	CDT			
T652⚠	1-421-710-11	PRT			
**********					
	*1-613-424-11	GB BOARD ********			
		CAPACITOR			
C656	1-106-196-00	MYLAR	0.01MF	10% 100V	
C658	1-123-356-00	ELECT	10MF	20% 50V	
C659	1-129-710-00	FILM	0.0047MF	10% 630V	
C660	1-129-710-00	FILM	0.0047MF	10% 630V	
C661	1-136-240-11	FILM	0.014MF	5% 1KV	
C662	1-125-294-00	ELECT(BLOCK)	560MF	20% 160V	
C663	1-102-038-00	CERAMIC	0.001MF	500V	
C664	1-102-038-00	CERAMIC	0.001MF	500V	
C665	1-123-338-00	ELECT	2200MF	20% 25V	
C666	1-123-324-00	ELECT	1000MF	20% 16V	
C667	1-102-038-00	CERAMIC	0.001MF	500V	

GB N A

Ref.No.	Part No.	Description			Remark	Ref.N
C669	1-123-363-00	ELECT	470MF	20% 50V		
		DIODE				R1
						R2
D655	8-719-300-09	DIODE CTU-24S				R3
	*4-347-706-00	HEAT SINK (TR), D655				R4
D656	8-719-301-09	DIODE CTL-12S				
D657	8-719-302-00	DIODE RU-2M				*****
D658	8-719-301-09	DIODE CTL-12S				
D661	8-719-302-00	DIODE RU-2M				
		FUSE				
F651	⚠1-532-595-11	FUSE, GLASS TUBE 125V 3.15A				
		CONNECTOR				A1
G5	*1-508-765-00	3P PLUG (M)				A2
						A3
		MODULE				A6
						A7
IC651	⚠1-235-445-11	MODULE, POWER (DM-21)				
						A8
		COIL				A9
						A10
L653	1-407-780-00	COIL, SPOOK CHOKE				A11
L654	1-407-365-00	COIL, CHOKE				A12
L655	1-407-690-00	MICRO INDUCTOR 5.6UH				
L656	1-459-406-00	COIL (WITH CORE)				A13
L657	1-407-365-00	COIL, CHOKE				A14
						A15
L659	1-407-780-00	COIL, SPOOK CHOKE				A16
						A18
		RESISTOR				A19
R657	⚠1-215-969-51	METAL	18K	1W		
R658	⚠1-211-427-11	CARBON	100	5% 1/8W F		
R659	⚠1-247-033-11	CARBON	100	5% 1/8W F		
R661	⚠1-202-657-15	SOLID	3.3M	5% 1/2W		C101
R663	⚠1-215-968-21	METAL	15K	1W		C102
						C103
		TRANSFORMER				C104
						C106
T653	⚠1-421-703-12	PIT				
**********						C107
	*1-611-717-11	N BOARD *******				C108
						C110
		CAPACITOR				C111
						C112
C1	1-123-611-00	ELECT	1MF	20% 50V		
C2	1-123-613-00	ELECT	3.3MF	20% 50V		C113
C3	1-102-820-00	CERAMIC	330PF	5% 50V		C114
C4	1-123-821-00	ELECT	47MF	20% 16V		C116
						C117
		DIODE				C118
D1	8-719-110-32	DIODE PH302B				
						C119
		IC				C120
						C121
IC1	8-752-010-60	IC CX20106				C122
						C123

KV-25XBR
RM-724/APM-X3U

GA GB

arts by refer-
ease include

in this manual have
each set in order to
radiation. Should
only with the value

	Remark
10%	200V
10%	500V
10%	500V

					Remark
2W	F				
1/2W					
2W	F				
2W	F				
1/2W					
%	1/2W				

****

					Remark
10%	100V				
20%	50V				
10%	630V				
10%	630V				
5%	1KV				
20%	160V				
	500V				
	500V				
20%	25V				
20%	16V				
	500V				

GB N A

Ref.No.	Part No.	Description			Remark
C669	1-123-363-00	ELECT	470MF	20% 50V	
		DIODE			
D655	8-719-300-09	DIODE CTU-24S			
	*4-347-706-00	HEAT SINK (TR), D655			
D656	8-719-301-09	DIODE CTL-12S			
D657	8-719-302-00	DIODE RU-2M			
D658	8-719-301-09	DIODE CTL-12S			
D661	8-719-302-00	DIODE RU-2M			
		FUSE			
F651	⚠1-532-595-11	FUSE, GLASS TUBE 125V 3.15A			
		CONNECTOR			
G5	*1-508-765-00	3P PLUG (M)			
		MODULE			
IC651	⚠1-235-445-11	MODULE, POWER (DM-21)			
		COIL			
L653	1-407-780-00	COIL, SPOOK CHOKE			
L654	1-407-365-00	COIL, CHOKE			
L655	1-407-690-00	MICRO INDUCTOR 5.6UH			
L656	1-459-406-00	COIL (WITH CORE)			
L657	1-407-365-00	COIL, CHOKE			
L659	1-407-780-00	COIL, SPOOK CHOKE			
		RESISTOR			
R657	⚠1-215-969-51	METAL	18K	1W	
R658	⚠1-211-427-11	CARBON	100 5%	1/8W F	
R659	⚠1-247-033-11	CARBON	100 5%	1/8W F	
R661	⚠1-202-657-15	SOLID	3.3M 5%	1/2W	
R663	⚠1-215-968-21	METAL	15K	1W	
		TRANSFORMER			
T653	⚠1-421-703-12	PIT			
		**********			
	*1-611-717-11	N BOARD			
		*******			
		CAPACITOR			
C1	1-123-611-00	ELECT	1MF	20% 50V	
C2	1-123-613-00	ELECT	3.3MF	20% 50V	
C3	1-102-820-00	CERAMIC	330PF	5% 50V	
C4	1-123-821-00	ELECT	47MF	20% 16V	
		DIODE			
D1	8-719-110-32	DIODE PH302B			
		IC			
IC1	8-752-010-60	IC CX20106			

Ref.No.	Part No.	Description			Remark
		RESISTOR			
R1	1-247-799-00	CARBON	47	5% 1/6W	
R2	1-247-775-00	CARBON	4.7	5% 1/6W	
R3	1-214-784-00	METAL	200K	1% 1/4W	
R4	1-247-863-00	CARBON	22K	5% 1/6W	
		**********			
	*A-1295-916-A	A BOARD, COMPLETE			
		**********			
	⚠1-463-471-33	SYNTHESIZER UNIT, FREQUENCY			
	*1-551-382-00	CABLE P-P			
		CONNECTOR			
A1	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P			
A2	*1-564-444-11	PLUG, CONNECTOR (2.5MM) 8P			
A3	*1-508-766-00	4P PLUG (M)			
A6	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P			
A7	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P			
A8	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P			
A9	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P			
A10	*1-564-354-21	PLUG, CONNECTOR (2.5MM) 3P			
A11	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P			
A12	*1-564-444-11	PLUG, CONNECTOR (2.5MM) 8P			
A13	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P			
A14	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P			
A15	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P			
A16	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P			
A18	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P			
A19	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P			
		CAPACITOR			
C101	1-102-816-00	CERAMIC	120PF	5% 50V	
C102	1-102-816-00	CERAMIC	120PF	5% 50V	
C103	1-102-074-00	CERAMIC	0.001MF	10% 50V	
C104	1-123-447-00	ELECT	0.22MF	20% 50V	
C106	1-123-380-00	ELECT	1MF	20% 50V	
C107	1-123-318-00	ELECT	33MF	20% 16V	
C108	1-101-001-00	CERAMIC	0.001MF	50V	
C110	1-123-381-00	ELECT	2.2MF	20% 50V	
C111	1-123-381-00	ELECT	2.2MF	20% 50V	
C112	1-123-381-00	ELECT	2.2MF	20% 50V	
C113	1-102-976-00	CERAMIC	180PF	5% 50V	
C114	1-102-976-00	CERAMIC	180PF	5% 50V	
C116	1-123-369-00	ELECT	4.7MF	20% 25V	
C117	1-101-880-00	CERAMIC	47PF	5% 50V	
C118	1-101-884-00	CERAMIC	56PF	5% 50V	
C119	1-102-976-00	CERAMIC	180PF	5% 50V	
C120	1-102-976-00	CERAMIC	180PF	5% 50V	
C121	1-106-188-00	MYLAR	0.0047MF	10% 100V	
C122	1-101-004-00	CERAMIC	0.01MF	50V	
C123	1-123-356-00	ELECT	10MF	20% 16V	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

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Ref.No.	Part No.	Description			Remark
C124	1-123-356-00	ELECT	10MF	20% 50V	
C125	1-123-380-00	ELECT	1MF	20% 50V	
C126	1-123-380-00	ELECT	1MF	20% 50V	
C127	1-123-380-00	ELECT	1MF	20% 50V	
C128	1-123-380-00	ELECT	1MF	20% 50V	
C129	1-119-129-00	ELECT	100MF	16V	
C130	1-123-324-00	ELECT	1000MF	20% 16V	
C131	1-123-318-00	ELECT	33MF	20% 16V	
C132	1-101-003-00	CERAMIC	0.0047MF	50V	
C133	1-101-003-00	CERAMIC	0.0047MF	50V	
C134	1-123-333-00	ELECT	100MF	20% 16V	
C135	1-101-003-00	CERAMIC	0.0047MF	50V	
C137	1-123-356-00	ELECT	10MF	20% 16V	
C138	1-123-356-00	ELECT	10MF	20% 16V	
C139	1-123-356-00	ELECT	10MF	20% 16V	
C140	1-101-001-00	CERAMIC	0.001MF	50V	
C141	1-101-002-00	CERAMIC	0.0022MF	50V	
C142	1-106-190-00	MYLAR	0.0056MF	10% 100V	
C143	1-123-309-00	ELECT	330MF	20% 10V	
C144	1-101-004-00	CERAMIC	0.01MF	50V	
C145	1-101-004-00	CERAMIC	0.01MF	50V	
C146	1-123-333-00	ELECT	100MF	20% 16V	
C147	1-101-001-00	CERAMIC	0.001MF	50V	
C149	1-101-004-00	CERAMIC	0.01MF	50V	
C150	1-101-004-00	CERAMIC	0.01MF	50V	
C151	1-119-135-00	ELECT	220MF	16V	
C152	1-123-356-00	ELECT	10MF	20% 16V	
C153	1-123-333-00	ELECT	100MF	20% 16V	
C154	1-123-356-00	ELECT	10MF	20% 16V	
C155	1-161-323-00	CERAMIC	0.001MF	10% 50V	
C156	1-123-356-00	ELECT	10MF	20% 16V	
C157	1-123-380-00	ELECT	1MF	20% 50V	
C158	1-106-180-00	MYLAR	0.0022MF	10% 100V	
C159	1-102-824-00	CERAMIC	470PF	5% 50V	
C201	1-102-121-00	CERAMIC	0.0022MF	10% 50V	
C202	1-102-128-00	CERAMIC	0.0082MF	10% 50V	
C203	1-102-851-00	CERAMIC	15PF	5% 50V	
C204	1-102-525-00	CERAMIC	68PF	5% 50V	
C205	1-123-318-00	ELECT	33MF	20% 16V	
C206	1-123-318-00	ELECT	33MF	20% 16V	
C207	1-101-884-00	CERAMIC	56PF	5% 50V	
C208	1-161-059-00	CERAMIC	0.047MF	10% 25V	
C209	1-102-824-00	CERAMIC	470PF	5% 50V	
C211	1-102-121-00	CERAMIC	0.0022MF	10% 50V	
C212	1-101-004-00	CERAMIC	0.01MF	50V	
C213	1-161-059-00	CERAMIC	0.047MF	10% 25V	
C214	1-102-121-00	CERAMIC	0.0022MF	10% 50V	
C215	1-102-121-00	CERAMIC	0.0022MF	10% 50V	
C216	1-102-525-00	CERAMIC	68PF	5% 50V	
C217	1-123-586-00	ELECT	0.1MF	20% 50V	
C218	1-123-586-00	ELECT	0.1MF	20% 50V	
C219	1-102-634-11	CERAMIC	8PF	0.5PF 50V	
C220	1-102-637-00	CERAMIC	12PF	5% 50V	
C221	1-161-013-00	CERAMIC	0.01MF	10% 25V	
C222	1-123-379-00	ELECT	0.47MF	20% 50V	
C223	1-123-356-00	ELECT	10MF	20% 16V	
C226	1-102-121-00	CERAMIC	0.0022MF	10% 50V	
C228	1-123-330-00	ELECT	22MF	20% 16V	
C231	1-102-121-00	CERAMIC	0.0022MF	10% 50V	
C232	1-102-959-00	CERAMIC	22PF	5% 50V	
C233	1-102-959-00	CERAMIC	22PF	5% 50V	
C234	1-123-379-00	ELECT	0.47MF	20% 50V	
C235	1-123-379-00	ELECT	0.47MF	20% 50V	
C236	1-123-318-00	ELECT	33MF	20% 16V	
C237	1-102-121-00	CERAMIC	0.0022MF	10% 50V	
C238	1-123-381-00	ELECT	2.2MF	20% 50V	
C239	1-102-752-61	CERAMIC	30PF	5% 50V	
C240	1-121-257-00	ELECT	4.7MF	16V	
C241	1-102-973-00	CERAMIC	100PF	5% 50V	
C243	1-102-816-00	CERAMIC	120PF	5% 50V	
C244	1-123-318-00	ELECT	33MF	20% 16V	
C245	1-123-333-00	ELECT	100MF	20% 16V	
C246	1-123-318-00	ELECT	33MF	20% 16V	
C247	1-123-333-00	ELECT	100MF	20% 16V	
C248	1-102-074-00	CERAMIC	0.001MF	10% 50V	
C249	1-123-380-00	ELECT	1MF	20% 50V	
C250	1-123-318-00	ELECT	33MF	20% 16V	
C251	1-123-333-00	ELECT	100MF	20% 16V	
C252	1-123-306-00	ELECT	47MF	20% 6.3V	
C301	1-123-356-00	ELECT	10MF	20% 16V	
C302	1-102-965-00	CERAMIC	39PF	5% 50V	
C303	1-101-884-00	CERAMIC	56PF	5% 50V	
C304	1-123-380-00	ELECT	1MF	20% 50V	
C305	1-123-380-00	ELECT	1MF	20% 50V	
C306	1-123-356-00	ELECT	10MF	20% 25V	
C307	1-123-369-00	ELECT	4.7MF	20% 25V	
C308	1-102-129-00	CERAMIC	0.01MF	10% 50V	
C309	1-102-973-00	CERAMIC	100PF	5% 50V	
C310	1-123-330-00	ELECT	22MF	20% 16V	
C311	1-161-047-00	CERAMIC	0.0047MF	10% 50V	
C312	1-123-447-00	ELECT	0.22MF	20% 50V	
C313	1-123-447-00	ELECT	0.22MF	20% 50V	
C314	1-101-004-00	CERAMIC	0.01MF	50V	
C315	1-123-356-00	ELECT	10MF	20% 16V	
C316	1-101-888-00	CERAMIC	68PF	5% 50V	
C317	1-102-865-00	CERAMIC	8PF	0.5PF 50V	
C318	1-102-074-00	CERAMIC	0.001MF	10% 50V	
C319	1-123-379-00	ELECT	0.47MF	20% 50V	
C320	1-121-806-00	ELECT	10MF	16V	
C321	1-123-379-00	ELECT	0.47MF	20% 50V	
C322	1-123-286-00	ELECT	0.33MF	20% 50V	
C323	1-123-379-00	ELECT	0.47MF	20% 50V	
C324	1-123-357-00	ELECT	22MF	20% 50V	
C325	1-123-380-00	ELECT	1MF	20% 50V	
C326	1-102-953-00	CERAMIC	18PF	5% 50V	
C328	1-161-264-00	CERAMIC	27PF	5% 50V	

KV-25XBR RM-724/APM-X3U

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Remark	Ref.No.	Part No.	Description			Remark
	C124	1-123-356-00	ELECT	10MF	20%	50V
	C125	1-123-380-00	ELECT	1MF	20%	50V
	C126	1-123-380-00	ELECT	1MF	20%	50V
	C127	1-123-380-00	ELECT	1MF	20%	50V
	C128	1-123-380-00	ELECT	1MF	20%	50V
	C129	1-119-129-00	ELECT	100MF		16V
*******	C130	1-123-324-00	ELECT	1000MF	20%	16V
	C131	1-123-318-00	ELECT	33MF	20%	16V
	C132	1-101-003-00	CERAMIC	0.0047MF		50V
	C133	1-101-003-00	CERAMIC	0.0047MF		50V
	C134	1-123-333-00	ELECT	100MF	20%	16V
	C135	1-101-003-00	CERAMIC	0.0047MF		50V
	C137	1-123-356-00	ELECT	10MF	20%	16V
	C138	1-123-356-00	ELECT	10MF	20%	16V
	C139	1-123-356-00	ELECT	10MF	20%	16V
	C140	1-101-001-00	CERAMIC	0.001MF		50V
	C141	1-101-002-00	CERAMIC	0.0022MF		50V
	C142	1-106-190-00	MYLAR	0.0056MF	10%	100V
	C143	1-123-309-00	ELECT	330MF	20%	10V
	C144	1-101-004-00	CERAMIC	0.01MF		50V
	C145	1-101-004-00	CERAMIC	0.01MF		50V
	C146	**1-123-333-00**	**ELECT**	100MF	20%	16V
	C147	1-101-001-00	CERAMIC	0.001MF		50V
	C149	1-101-004-00	CERAMIC	0.01MF		50V
	C150	1-101-004-00	CERAMIC	0.01MF		50V
	C151	1-119-135-00	ELECT	220MF		16V
	C152	1-123-356-00	ELECT	10MF	20%	16V
	C153	1-123-333-00	ELECT	100MF	20%	16V
	C154	1-123-356-00	ELECT	10MF	20%	16V
	C155	1-161-323-00	CERAMIC	0.001MF	10%	50V
	C156	1-123-356-00	ELECT	10MF	20%	16V
	C157	1-123-380-00	ELECT	1MF	20%	50V
	C158	1-106-180-00	MYLAR	0.0022MF	10%	100V
0V	C159	1-102-824-00	CERAMIC	470PF	5%	50V
0V	C201	1-102-121-00	CERAMIC	0.0022MF	10%	50V
0V						
0V	C202	1-102-128-00	CERAMIC	0.0082MF	10%	50V
0V	C203	1-102-851-00	CERAMIC	15PF	5%	50V
	C204	1-102-525-00	CERAMIC	68PF	5%	50V
5V	C205	1-123-318-00	ELECT	33MF	20%	16V
0V	C206	1-123-318-00	ELECT	33MF	20%	16V
0V						
0V	C207	1-101-884-00	CERAMIC	56PF	5%	50V
0V	C208	1-161-059-00	CERAMIC	0.047MF	10%	25V
	C209	1-102-824-00	CERAMIC	470PF	5%	50V
0V	C211	1-102-121-00	CERAMIC	0.0022MF	10%	50V
0V	C212	1-101-004-00	CERAMIC	0.01MF		50V
5V						
0V	C213	1-161-059-00	CERAMIC	0.047MF	10%	25V
0V	C214	1-102-121-00	CERAMIC	0.0022MF	10%	50V
	C215	1-102-121-00	CERAMIC	0.0022MF	10%	50V
0V	C216	1-102-525-00	CERAMIC	68PF	5%	50V
0V	C217	1-123-586-00	ELECT	0.1MF	20%	50V
00V						
0V	C218	1-123-586-00	ELECT	0.1MF	20%	50V
5V	C219	1-102-634-11	CERAMIC	8PF	0.5PF	50V
	C220	1-102-637-00	CERAMIC	12PF	5%	50V

Ref.No.	Part No.	Description			Remark
C221	1-161-013-00	CERAMIC	0.01MF	10%	25V
C222	1-123-379-00	ELECT	0.47MF	20%	50V
C223	1-123-356-00	ELECT	10MF	20%	16V
C226	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C228	1-123-330-00	ELECT	22MF	20%	16V
C231	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C232	1-102-959-00	CERAMIC	22PF	5%	50V
C233	1-102-959-00	CERAMIC	22PF	5%	50V
C234	1-123-379-00	ELECT	0.47MF	20%	50V
C235	1-123-379-00	ELECT	0.47MF	20%	50V
C236	1-123-318-00	ELECT	33MF	20%	16V
C237	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C238	1-123-381-00	ELECT	2.2MF	20%	50V
C239	1-102-752-61	CERAMIC	30PF	5%	50V
C240	1-121-257-00	ELECT	4.7MF		16V
C241	1-102-973-00	CERAMIC	100PF	5%	50V
C243	1-102-816-00	CERAMIC	120PF	5%	50V
C244	1-123-318-00	ELECT	33MF	20%	16V
C245	1-123-333-00	ELECT	100MF	20%	16V
C246	1-123-318-00	ELECT	33MF	20%	16V
C247	1-123-333-00	ELECT	100MF	20%	16V
C248	1-102-074-00	CERAMIC	0.001MF	10%	50V
C249	1-123-380-00	ELECT	1MF	20%	50V
C250	1-123-318-00	ELECT	33MF	20%	16V
C251	1-123-333-00	ELECT	100MF	20%	16V
C252	1-123-306-00	ELECT	47MF	20%	6.3V
C301	1-123-356-00	ELECT	10MF	20%	16V
C302	**1-102-965-00**	**CERAMIC**	39PF	5%	50V
C303	1-101-884-00	CERAMIC	56PF	5%	50V
C304	1-123-380-00	ELECT	1MF	20%	50V
C305	1-123-380-00	ELECT	1MF	20%	50V
C306	1-123-356-00	ELECT	10MF	20%	25V
C307	1-123-369-00	ELECT	4.7MF	20%	25V
C308	1-102-129-00	CERAMIC	0.01MF	10%	50V
C309	1-102-973-00	CERAMIC	100PF	5%	50V
C310	1-123-330-00	ELECT	22MF	20%	16V
C311	1-161-047-00	CERAMIC	0.0047MF	10%	50V
C312	1-123-447-00	ELECT	0.22MF	20%	50V
C313	1-123-447-00	ELECT	0.22MF	20%	50V
C314	1-101-004-00	CERAMIC	0.01MF		50V
C315	1-123-356-00	ELECT	10MF	20%	16V
C316	1-101-888-00	CERAMIC	68PF	5%	50V
C317	1-102-865-00	CERAMIC	8PF	0.5PF	50V
C318	1-102-074-00	CERAMIC	0.001MF	10%	50V
C319	1-123-379-00	ELECT	0.47MF	20%	50V
C320	1-121-806-00	ELECT	10MF		16V
C321	1-123-379-00	ELECT	0.47MF	20%	50V
C322	1-123-286-00	ELECT	0.33MF	20%	50V
C323	1-123-379-00	ELECT	0.47MF	20%	50V
C324	1-123-357-00	ELECT	22MF	20%	50V
C325	1-123-380-00	ELECT	1MF	20%	50V
C326	1-102-953-00	CERAMIC	18PF	5%	50V
C328	1-161-264-00	CERAMIC	27PF	5%	50V

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Ref.No.	Part No.	Description			Remark
C330	1-123-333-00	ELECT	100MF	20%	16V
C331	1-101-888-00	CERAMIC	68PF	5%	50V
C332	1-102-965-00	CERAMIC	39PF	5%	50V
C333	1-123-323-00	ELECT	470MF	20%	16V
C334	1-123-380-00	ELECT	1MF	20%	50V
C338	1-101-888-00	CERAMIC	68PF	5%	50V
C339	1-102-942-00	CERAMIC	5PF	0.5PF	50V
C340	1-123-324-00	ELECT	1000MF	20%	16V
C391	1-106-196-00	MYLAR	0.01MF	10%	100V
C392	1-102-971-00	CERAMIC	82PF	5%	50V
C393	1-123-356-00	ELECT	10MF	20%	16V
C401	1-123-356-00	ELECT	10MF	20%	16V
C402	1-123-356-00	ELECT	10MF	20%	16V
C403	1-123-356-00	ELECT	10MF	20%	16V
C404	1-123-324-00	ELECT	1000MF	20%	16V
C405	1-101-003-00	CERAMIC	0.0047MF		50V
C406	1-123-379-00	ELECT	0.47MF	20%	50V
C407	1-123-379-00	ELECT	0.47MF	20%	50V
C408	1-123-379-00	ELECT	0.47MF	20%	50V
C410	1-101-004-00	CERAMIC	0.01MF		50V
C411	1-123-356-00	ELECT	10MF	20%	50V
C412	1-123-369-00	ELECT	4.7MF	20%	50V
C413	1-106-184-00	MYLAR	0.0033MF	10%	100V
C417	1-123-379-00	ELECT	0.47MF	20%	50V
C418	1-101-003-00	CERAMIC	0.0047MF		50V
C419	1-123-332-00	ELECT	47MF	20%	16V
C421	1-123-380-00	ELECT	1MF	20%	50V
C423	1-102-820-00	CERAMIC	330PF	5%	50V
C424	1-123-356-00	ELECT	10MF	20%	16V
C426	1-123-356-00	ELECT	10MF	20%	16V
C427	1-101-001-00	CERAMIC	0.001MF		50V
C428	1-101-884-00	CERAMIC	56PF	5%	50V

FILTER

CF201	1-409-332-00	CERAMIC TRAP (4.5MHZ)
CF202	1-527-943-00	FILTER, CERAMIC

TRIMMER

CV316	1-141-147-XX	CAP, TRIMMER

DIODE

D101	8-719-911-19	DIODE 1SS119
D102	8-759-300-42	IC HZT33-02
D103	8-719-102-60	DIODE RD3.9E-N2
D104	8-719-102-60	DIODE RD3.9E-N2
D108	8-719-911-19	DIODE 1SS119
D109	8-719-911-19	DIODE 1SS119
D110	8-719-911-19	DIODE 1SS119
D111	8-719-102-65	DIODE RD4.7E-N2
D112	8-719-101-04	DIODE RD33E-B2
D117	8-719-102-70	DIODE RD5.6E-N1
D119	8-719-911-19	DIODE 1SS119
D202	8-719-911-19	DIODE 1SS119
D203	8-719-102-91	DIODE RD10E-N3
D204	8-719-103-06	DIODE RD13E-N2
D205	8-719-911-19	DIODE 1SS119
D251	8-719-102-71	DIODE RD5.6E-N2
D402	8-719-911-19	DIODE 1SS119
D403	8-719-911-19	DIODE 1SS119
D404	8-719-911-19	DIODE 1SS119
D405	8-719-911-19	DIODE 1SS119
D406	8-719-911-19	DIODE 1SS119
D407	8-719-911-19	DIODE 1SS119
D408	8-719-911-19	DIODE 1SS119
D409	8-719-911-19	DIODE 1SS119
D411	8-719-911-19	DIODE 1SS119

DELAY LINE

DL301	1-415-356-11	DELAY LINE, 1H
DL302	1-415-388-11	DELAY LINE, Y

IC

IC101	8-759-103-07	IC CX526-025
IC102	8-759-800-65	IC LA7910
IC103	8-759-912-82	IC CX530-507N
IC104	8-759-909-50	IC CX7958
IC105	8-759-140-71	IC UPD4071BC
IC106	8-752-320-11	IC CXK1001P
IC107	8-759-102-28	IC UPD6326C
IC201	8-752-001-41	IC CX20014A
IC202	8-752-013-90	IC CX20139
IC203	8-759-108-05	IC UPC78L05A
IC301	8-758-480-00	IC CX848
IC302	8-759-913-11	IC CX20125
IC401	8-752-010-00	IC CX20100
IC402	8-759-040-53	IC MC14053BCP
IC403	8-759-145-58	IC UPC4558C

COIL

L101	1-407-717-00	MICRO INDUCTOR 1MMH
L102	1-404-538-11	COIL
L103	1-408-398-00	MICRO INDUCTOR 1.2UH
L104	1-408-403-00	MICRO INDUCTOR 3.3UH
L105	1-408-403-00	MICRO INDUCTOR 3.3UH
L107	1-410-016-11	MICRO INDUCTOR 3.9UH
L108	1-410-016-11	MICRO INDUCTOR 3.9UH
L109	1-410-016-11	MICRO INDUCTOR 3.9UH
L110	1-408-429-00	MICRO INDUCTOR 470UH
L111	1-408-450-11	MICRO INDUCTOR 47UH
L112	1-408-421-00	MICRO INDUCTOR 100UH
L113	1-407-179-00	MICRO INDUCTOR 1.2UH
L114	1-407-178-XX	MICRO INDUCTOR 1UH
L201	1-408-408-00	MICRO INDUCTOR 8.2UH
L202	1-408-709-00	MICRO INDUCTOR 0.68UH
L203	1-410-073-11	MICRO INDUCTOR 0.22UH
L204	1-408-408-00	MICRO INDUCTOR 8.2UH
L205	1-408-445-11	MICRO INDUCTOR 18UH
L206	1-408-412-00	MICRO INDUCTOR 18UH
L207	1-408-402-00	MICRO INDUCTOR 2.7UH
L208	1-408-409-00	MICRO INDUCTOR 10UH

Ref.No.	Part No.	Description	Remark
L301	1-408-450-11	MICRO INDUCTOR 47UH	
L302	1-408-416-00	MICRO INDUCTOR 39UH	
L303	1-404-540-11	COIL	
L304	1-408-411-00	MICRO INDUCTOR 15UH	
L305	1-408-398-00	MICRO INDUCTOR 1.2UH	
L306	1-408-398-00	MICRO INDUCTOR 1.2UH	
L307	1-408-398-00	MICRO INDUCTOR 1.2UH	
L308	1-408-163-00	MICRO INDUCTOR 5.6MMH	
L309	1-408-456-11	MICRO INDUCTOR 150UH	
L310	1-408-409-00	MICRO INDUCTOR 10UH	
L401	1-408-421-00	MICRO INDUCTOR 100UH	
		TRANSISTOR	
Q101	8-729-204-83	TRANSISTOR 2SA1048GR	
Q102	8-729-245-83	TRANSISTOR 2SC2458	
Q103	8-729-245-83	TRANSISTOR 2SC2458	
Q104	8-729-204-83	TRANSISTOR 2SA1048GR	
Q105	8-729-245-83	TRANSISTOR 2SC2458	
Q106	8-729-245-83	TRANSISTOR 2SC2458	
Q107	8-729-204-83	TRANSISTOR 2SA1048GR	
Q108	8-729-245-83	TRANSISTOR 2SC2458	
Q109	8-729-245-83	TRANSISTOR 2SC2458	
Q110	8-729-245-83	TRANSISTOR 2SC2458	
Q111	8-729-245-83	TRANSISTOR 2SC2458	
Q113	8-729-204-83	TRANSISTOR 2SA1048GR	
Q114	8-729-204-83	TRANSISTOR 2SA1048GR	
Q115	8-729-204-83	TRANSISTOR 2SA1048GR	
Q116	8-729-245-83	TRANSISTOR 2SC2458	
Q118	8-729-245-83	TRANSISTOR 2SC2458	
Q123	8-729-245-83	TRANSISTOR 2SC2458	
Q124	8-729-245-83	TRANSISTOR 2SC2458	
Q125	8-729-204-83	TRANSISTOR 2SA1048GR	
Q126	8-729-245-83	TRANSISTOR 2SC2458	
Q127	8-729-245-83	TRANSISTOR 2SC2458	
Q128	8-729-245-83	TRANSISTOR 2SC2458	
Q201	8-729-266-93	TRANSISTOR 2SC2669	
Q202	8-729-204-83	TRANSISTOR 2SA1048GR	
Q204	8-729-245-83	TRANSISTOR 2SC2458	
Q205	8-729-204-83	TRANSISTOR 2SA1048GR	
Q206	8-729-245-83	TRANSISTOR 2SC2458	
Q207	8-729-245-83	TRANSISTOR 2SC2458	
Q208	8-729-288-02	TRANSISTOR 2SD880	
Q209	8-729-201-78	TRANSISTOR 2SD1406	
Q251	8-729-288-02	TRANSISTOR 2SD880	
Q301	8-729-245-83	TRANSISTOR 2SC2458	
Q302	8-729-245-83	TRANSISTOR 2SC2458	
Q303	8-729-245-83	TRANSISTOR 2SC2458	
Q304	8-729-245-83	TRANSISTOR 2SC2458	
Q305	8-729-245-83	TRANSISTOR 2SC2458	
Q306	8-729-245-83	TRANSISTOR 2SC2458	
Q307	8-729-245-83	TRANSISTOR 2SC2458	
Q308	8-729-245-83	TRANSISTOR 2SC2458	
Q309	8-729-245-83	TRANSISTOR 2SC2458	
Q310	8-729-245-83	TRANSISTOR 2SC2458	
Q311	8-729-245-83	TRANSISTOR 2SC2458	
Q313	8-729-204-83	TRANSISTOR 2SA1048GR	

Ref.No.	Part No.	Description	Remark
Q391	8-729-245-83	TRANSISTOR 2SC2458	
Q392	8-729-245-83	TRANSISTOR 2SC2458	
Q393	8-729-245-83	TRANSISTOR 2SC2458	
Q394	8-729-245-83	TRANSISTOR 2SC2458	
Q403	8-729-204-83	TRANSISTOR 2SA1048GR	
Q404	8-729-204-83	TRANSISTOR 2SA1048GR	
Q405	8-729-204-83	TRANSISTOR 2SA1048GR	
Q406	8-729-204-83	TRANSISTOR 2SA1048GR	
Q407	8-729-204-83	TRANSISTOR 2SA1048GR	
Q408	8-729-245-83	TRANSISTOR 2SC2458	
Q409	8-729-245-83	TRANSISTOR 2SC2458	
Q410	8-729-245-83	TRANSISTOR 2SC2458	
Q411	8-729-204-83	TRANSISTOR 2SA1048GR	
Q412	8-729-204-83	TRANSISTOR 2SA1048GR	
Q413	8-729-204-83	TRANSISTOR 2SA1048GR	
Q414	8-729-204-83	TRANSISTOR 2SA1048GR	
Q415	8-729-245-83	TRANSISTOR 2SC2458	
Q416	8-729-204-83	TRANSISTOR 2SA1048GR	
Q417	8-729-245-83	TRANSISTOR 2SC2458	
Q418	8-729-245-83	TRANSISTOR 2SC2458	
Q419	8-729-245-83	TRANSISTOR 2SC2458	
Q420	8-729-204-83	TRANSISTOR 2SA1048GR	
Q421	8-729-204-83	TRANSISTOR 2SA1048GR	
Q422	8-729-204-83	TRANSISTOR 2SA1048GR	
Q423	8-729-204-83	TRANSISTOR 2SA1048GR	
Q424	8-729-204-83	TRANSISTOR 2SA1048GR	
Q426	8-729-245-83	TRANSISTOR 2SC2458	
Q427	8-729-245-83	TRANSISTOR 2SC2458	
Q428	8-729-245-83	TRANSISTOR 2SC2458	
Q429	8-729-204-83	TRANSISTOR 2SA1048GR	
Q430	8-729-204-83	TRANSISTOR 2SA1048GR	
Q431	8-729-245-83	TRANSISTOR 2SC2458	
Q432	8-729-204-83	TRANSISTOR 2SA1048GR	
		RESISTOR	
R001	1-247-127-00	CARBON 680 5% 1/4W	
R002	1-247-117-00	CARBON 270 5% 1/4W	
R003	1-247-117-00	CARBON 270 5% 1/4W	
R004	1-247-843-00	CARBON 3.3K 5% 1/6W	
R005	1-247-843-00	CARBON 3.3K 5% 1/6W	
R006	1-247-163-00	CARBON 22K 5% 1/4W	
R007	1-247-143-00	CARBON 3.3K 5% 1/4W	
R008	1-247-143-00	CARBON 3.3K 5% 1/4W	
R009	1-247-843-00	CARBON 3.3K 5% 1/6W	
R010	1-247-143-00	CARBON 3.3K 5% 1/4W	
R012	1-247-115-00	CARBON 220 5% 1/4W	
R014	1-247-135-00	CARBON 1.5K 5% 1/4W	
R015	1-247-847-00	CARBON 4.7K 5% 1/6W	
R016	1-247-155-00	CARBON 10K 5% 1/4W	
R020	1-249-421-11	CARBON 2.2K 5% 1/6W	
R021	1-249-421-11	CARBON 2.2K 5% 1/6W	
R022	1-249-421-11	CARBON 2.2K 5% 1/6W	
R023	1-249-421-11	CARBON 2.2K 5% 1/6W	
R025	1-247-131-00	CARBON 1K 5% 1/4W	
R026	1-247-855-00	CARBON 10K 5% 1/6W	
R027	1-247-867-00	CARBON 33K 5% 1/6W	
R028	1-247-131-00	CARBON 1K 5% 1/6W	

A

Ref.No.	Part No.	Description				Remark
R100	1-247-895-00	CARBON	470K	5%	1/6W	
R106	1-247-847-00	CARBON	4.7K	5%	1/6W	
R107	1-247-717-11	CARBON	2.2K	5%	1/4W	
R108	1-247-717-11	CARBON	2.2K	5%	1/4W	
R109	1-247-855-00	CARBON	10K	5%	1/6W	
R110	1-247-855-00	CARBON	10K	5%	1/6W	
R111	1-247-823-00	CARBON	470	5%	1/6W	
R112	1-247-885-00	CARBON	180K	5%	1/6W	
R113	1-247-855-00	CARBON	10K	5%	1/6W	
R114	1-247-717-11	CARBON	2.2K	5%	1/4W	
R115	1-247-819-00	CARBON	330	5%	1/6W	
R118	1-247-131-00	CARBON	1K	5%	1/4W	
R119	1-247-831-00	CARBON	1K	5%	1/6W	
R120	1-247-871-00	CARBON	47K	5%	1/6W	
R121	1-247-871-00	CARBON	47K	5%	1/6W	
R122	1-247-163-00	CARBON	22K	5%	1/4W	
R123	1-247-717-11	CARBON	2.2K	5%	1/4W	
R124	1-247-849-00	CARBON	5.6K	5%	1/6W	
R125	1-247-167-00	CARBON	33K	5%	1/4W	
R126	1-247-851-00	CARBON	6.8K	5%	1/6W	
R127	1-247-835-00	CARBON	1.5K	5%	1/6W	
R128	1-247-857-00	CARBON	12K	5%	1/6W	
R129	1-247-855-00	CARBON	10K	5%	1/6W	
R130	1-247-167-00	CARBON	33K	5%	1/4W	
R131	1-247-887-00	CARBON	220K	5%	1/6W	
R132	1-247-153-00	CARBON	8.2K	5%	1/4W	
R133	1-247-873-00	CARBON	56K	5%	1/6W	
R134	1-247-895-00	CARBON	470K	5%	1/6W	
R135	1-247-895-00	CARBON	470K	5%	1/6W	
R136	1-247-889-00	CARBON	270K	5%	1/6W	
R137	1-249-421-11	CARBON	2.2K	5%	1/6W	
R138	1-247-125-00	CARBON	560 1K	5%	1/4W	
R139	1-247-717-11	CARBON	2.2K	5%	1/4W	
R140	1-247-717-11	CARBON	2.2K	5%	1/4W	
R142	1-247-107-00	CARBON	100	5%	1/4W	
R143	1-247-717-11	CARBON	2.2K	5%	1/4W	
R144	1-247-855-00	CARBON	10K	5%	1/6W	
R145	1-247-879-00	CARBON	100K	5%	1/6W	
R146	1-247-123-00	CARBON	470	5%	1/4W	
R147	1-247-123-00	CARBON	470	5%	1/4W	
R148	1-247-123-00	CARBON	470	5%	1/4W	
R149	1-247-143-00	CARBON	3.3K	5%	1/4W	
R150	1-247-143-00	CARBON	3.3K	5%	1/4W	
R151	1-247-115-00	CARBON	220	5%	1/4W	
R152	1-247-871-00	CARBON	47K	5%	1/6W	
R153	1-247-855-00	CARBON	10K	5%	1/6W	
R154	1-247-871-00	CARBON	47K	5%	1/6W	
R155	1-247-871-00	CARBON	47K	5%	1/6W	
R156	1-247-887-00	CARBON	220K	5%	1/6W	
R157	1-247-863-00	CARBON	22K	5%	1/6W	
R158	1-247-871-00	CARBON	47K	5%	1/6W	
R159	1-247-889-00	CARBON	270K	5%	1/6W	
R160	1-247-879-00	CARBON	100K	5%	1/6W	
R161	1-247-131-00	CARBON	1K	5%	1/4W	

Ref.No.	Part No.	Description				Remark
R162	1-247-131-00	CARBON	1K	5%	1/4W	
R163	1-247-131-00	CARBON	1K	5%	1/4W	
R164	1-249-421-11	CARBON	2.2K	5%	1/6W	
R165	1-249-421-11	CARBON	2.2K	5%	1/6W	
R166	1-246-411-00	CARBON	2.7	5%	1/4W	
R167	1-206-696-00	METAL OXIDE	22K	5%	2W	F
R168	1-247-717-11	CARBON	2.2K	5%	1/4W	
R169	1-247-155-00	CARBON	10K	5%	1/4W	
R170	1-247-155-00	CARBON	10K	5%	1/4W	
R171	1-247-831-00	CARBON	1K	5%	1/6W	
R172	1-247-179-00	CARBON	100K	5%	1/4W	
R173	1-247-179-00	CARBON	100K	5%	1/4W	
R174	1-247-855-00	CARBON	10K	5%	1/6W	
R175	1-247-155-00	CARBON	10K	5%	1/4W	
R176	1-247-891-00	CARBON	330K	5%	1/6W	
R177	1-247-855-00	CARBON	10K	5%	1/6W	
R178	1-247-717-11	CARBON	2.2K	5%	1/4W	
R179	1-247-717-11	CARBON	2.2K	5%	1/4W	
R180	1-249-421-11	CARBON	2.2K	5%	1/6W	
R181	1-249-421-11	CARBON	2.2K	5%	1/6W	
R182	1-249-421-11	CARBON	2.2K	5%	1/6W	
R183	1-247-877-00	CARBON	82K	5%	1/6W	
R185	1-247-855-00	CARBON	10K	5%	1/6W	
R186	1-247-855-00	CARBON	10K	5%	1/6W	
R187	1-249-421-11	CARBON	2.2K	5%	1/6W	
R188	1-249-421-11	CARBON	2.2K	5%	1/6W	
R189	1-249-421-11	CARBON	2.2K	5%	1/6W	
R190	1-247-855-00	CARBON	10K	5%	1/6W	
R191	1-247-843-00	CARBON	3.3K	5%	1/6W	
R192	1-247-847-00	CARBON	4.7K	5%	1/6W	
R193	1-244-877-51	CARBON	1.5K	5%	1/2W	
R194	1-247-871-00	CARBON	47K	5%	1/6W	
R196	1-247-871-00	CARBON	47K	5%	1/6W	
R197	1-247-871-00	CARBON	47K	5%	1/6W	
R198	1-247-863-00	CARBON	22K	5%	1/6W	
R199	1-247-855-00	CARBON	10K	5%	1/6W	
R201	1-247-837-00	CARBON	1.8K	5%	1/6W	
R202	1-247-857-00	CARBON	12K	5%	1/6W	
R203	1-247-855-00	CARBON	10K	5%	1/6W	
R204	1-215-457-00	METAL	33K	1%	1/6W	
R205	1-215-457-00	METAL	33K	1%	1/6W	
R206	1-247-863-00	CARBON	22K	5%	1/6W	
R208	1-247-883-00	CARBON	150K	5%	1/6W	
R209	1-247-883-00	CARBON	150K	5%	1/6W	
R211	1-247-831-00	CARBON	1K	5%	1/6W	
R215	1-247-883-00	CARBON	150K	5%	1/6W	
R216	1-247-815-00	CARBON	220	5%	1/6W	
R218	1-247-845-00	CARBON	3.9K	5%	1/6W	
R219	1-247-817-00	CARBON	270	5%	1/6W	
R220	1-247-801-00	CARBON	56	5%	1/6W	
R221	1-247-822-00	CARBON	430	5%	1/6W	
R223	1-247-821-00	CARBON	390	5%	1/6W	
R224	1-247-830-00	CARBON	910	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R225	1-247-827-00	CARBON	680	5%	1/6W	
R226	1-247-807-00	CARBON	100	5%	1/6W	
R227	1-247-827-00	CARBON	680	5%	1/6W	
R228	1-247-833-00	CARBON	1.2K	5%	1/6W	
R229	1-247-803-00	CARBON	68	5%	1/6W	
R230	1-247-843-00	CARBON	3.3K	5%	1/6W	
R231	1-247-846-00	CARBON	4.3K	5%	1/6W	
R232	1-247-851-00	CARBON	6.8K	5%	1/6W	
R234	1-249-421-11	CARBON	2.2K	5%	1/6W	
R235	1-247-821-00	CARBON	390	5%	1/6W	
R236	1-247-107-00	CARBON	100	5%	1/4W	
R237	1-247-795-00	CARBON	33	5%	1/6W	
R238	1-247-847-00	CARBON	4.7K	5%	1/6W	
R239	1-247-819-00	CARBON	330	5%	1/6W	
R241	1-212-367-00	METAL OXIDE	3.9	5%	1W	F
R242	1-206-495-00	METAL OXIDE	2.2	5%	3W	F
R243	1-247-821-00	CARBON	390	5%	1/6W	
R244	1-247-115-00	CARBON	220	5%	1/4W	
R245	1-247-825-00	CARBON	560	5%	1/6W	
R250	1-206-453-00	METAL OXIDE	3.9	5%	2W	F
R251	1-247-119-00	CARBON	330	5%	1/4W	
R256	1-247-025-00	CARBON	3.9	5%	1/8W	F
R300	1-247-807-00	CARBON	100	5%	1/6W	
R301	1-247-867-00	CARBON	33K	5%	1/6W	
R302	1-247-865-00	CARBON	27K	5%	1/6W	
R303	1-247-833-00	CARBON	1.2K	5%	1/6W	
R304	1-247-823-00	CARBON	470	5%	1/6W	
R305	1-247-833-00	CARBON	1.2K	5%	1/6W	
R306	1-247-835-00	CARBON	1.5K	5%	1/6W	
R307	1-247-827-00	CARBON	680	5%	1/6W	
R308	1-247-827-00	CARBON	680	5%	1/6W	
R309	1-247-827-00	CARBON	680	5%	1/6W	
R310	1-247-827-00	CARBON	680	5%	1/6W	
R311	1-247-833-00	CARBON	1.2K	5%	1/6W	
R312	1-247-833-00	CARBON	1.2K	5%	1/6W	
R313	1-247-835-00	CARBON	1.5K	5%	1/6W	
R314	1-247-835-00	CARBON	1.5K	5%	1/6W	
R315	1-247-833-00	CARBON	1.2K	5%	1/6W	
R316	1-247-833-00	CARBON	1.2K	5%	1/6W	
R317	1-247-831-00	CARBON	1K	5%	1/6W	
R318	1-247-841-00	CARBON	2.7K	5%	1/6W	
R319	1-247-841-00	CARBON	2.7K	5%	1/6W	
R320	1-247-841-00	CARBON	2.7K	5%	1/6W	
R321	1-247-899-00	CARBON	680K	5%	1/6W	
R322	1-247-865-00	CARBON	27K	5%	1/6W	
R323	1-247-145-00	CARBON	3.9K	5%	1/4W	
R324	1-247-119-00	CARBON	330	5%	1/4W	
R325	1-247-863-00	CARBON	22K	5%	1/6W	
R326	1-247-843-00	CARBON	3.3K	5%	1/6W	
R327	1-247-845-00	CARBON	3.9K	5%	1/6W	
R328	1-247-829-00	CARBON	820	5%	1/6W	
R329	1-249-421-11	CARBON	2.2K	5%	1/6W	
R330	1-247-831-00	CARBON	1K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R331	1-247-807-00	CARBON	100	5%	1/6W	
R332	1-247-821-00	CARBON	390	5%	1/6W	
R333	1-247-863-00	CARBON	22K	5%	1/6W	
R334	1-247-829-00	CARBON	820	5%	1/6W	
R335	1-247-831-00	CARBON	1K	5%	1/6W	
R336	1-247-897-00	CARBON	560K	5%	1/6W	
R337	1-247-895-00	CARBON	470K	5%	1/6W	
R339	1-247-819-00	CARBON	330	5%	1/6W	
R340	1-247-871-00	CARBON	47K	5%	1/6W	
R341	1-247-857-00	CARBON	12K	5%	1/6W	
R342	1-247-855-00	CARBON	10K	5%	1/6W	
R345	1-247-155-00	CARBON	10K	5%	1/4W	
R346	1-247-115-00	CARBON	220	5%	1/4W	
R347	1-249-421-11	CARBON	2.2K	5%	1/6W	
R348	1-247-815-00	CARBON	220	5%	1/6W	
R349	1-247-871-00	CARBON	47K	5%	1/6W	
R350	1-247-815-00	CARBON	220	5%	1/6W	
R351	1-247-829-00	CARBON	820	5%	1/6W	
R352	1-247-155-00	CARBON	10K	5%	1/4W	
R353	1-247-863-00	CARBON	22K	5%	1/6W	
R354	1-246-537-00	CARBON	470K	5%	1/4W	
R355	1-247-815-00	CARBON	220	5%	1/6W	
R356	1-246-517-25	CARBON	68K	5%	1/4W	
R357	1-247-903-00	CARBON	1M	5%	1/6W	
R359	1-247-827-00	CARBON	680	5%	1/6W	
R360	1-247-827-00	CARBON	680	5%	1/6W	
R361	1-247-823-00	CARBON	470	5%	1/6W	
R362	1-247-833-00	CARBON	1.2K	5%	1/6W	
R363	1-247-819-00	CARBON	330	5%	1/6W	
R364	1-247-833-00	CARBON	1.2K	5%	1/6W	
R365	1-247-837-00	CARBON	1.8K	5%	1/6W	
R366	1-247-841-00	CARBON	2.7K	5%	1/6W	
R367	1-247-847-00	CARBON	4.7K	5%	1/6W	
R377	1-247-123-00	CARBON	470	5%	1/4W	
R380	1-247-867-00	CARBON	33K	5%	1/6W	
R381	1-247-867-00	CARBON	33K	5%	1/6W	
R382	1-247-855-00	CARBON	10K	5%	1/6W	
R391	1-247-865-00	CARBON	27K	5%	1/6W	
R392	1-247-845-00	CARBON	3.9K	5%	1/6W	
R393	1-247-815-00	CARBON	220	5%	1/6W	
R394	1-247-819-00	CARBON	330	5%	1/6W	
R395	1-247-835-00	CARBON	1.5K	5%	1/6W	
R396	1-247-831-00	CARBON	1K	5%	1/6W	
R397	1-247-855-00	CARBON	10K	5%	1/6W	
R398	1-247-855-00	CARBON	10K	5%	1/6W	
R401	1-247-115-00	CARBON	220	5%	1/4W	
R402	1-247-115-00	CARBON	220	5%	1/4W	
R403	1-247-115-00	CARBON	220	5%	1/4W	
R404	1-247-849-00	CARBON	5.6K	5%	1/6W	
R405	1-247-839-00	CARBON	2.2K	5%	1/6W	
R406	1-247-833-00	CARBON	1.2K	5%	1/6W	
R408	1-247-839-00	CARBON	2.2K	5%	1/6W	
R410	1-215-406-00	METAL	240	1%	1/6W	
R411	1-214-717-00	METAL	330	1%	1/4W	

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Ref.No.	Part No.	Description				Remark
R412	1-247-831-00	CARBON	1K	5%	1/6W	
R414	1-247-179-00	CARBON	100K	5%	1/4W	
R416	1-246-523-00	CARBON	120K	5%	1/4W	
R417	1-247-163-00	CARBON	22K	5%	1/4W	
R418	1-247-855-00	CARBON	10K	5%	1/6W	
R419	1-247-179-00	CARBON	100K	5%	1/4W	
R420	1-247-847-00	CARBON	4.7K	5%	1/6W	
R421	1-214-717-00	METAL	330	1%	1/4W	
R422	1-247-163-00	CARBON	22K	5%	1/4W	
R423	1-247-871-00	CARBON	47K	5%	1/6W	
R424	1-247-131-00	CARBON	1K	5%	1/4W	
R425	1-249-421-11	CARBON	2.2K	5%	1/6W	
R426	1-247-177-00	CARBON	82K	5%	1/4W	
R427	1-214-753-00	METAL	10K	1%	1/4W	
R428	1-247-885-00	CARBON	180K	5%	1/6W	
R429	1-247-129-00	CARBON	820	5%	1/4W	
R431	1-214-753-00	METAL	10K	1%	1/4W	
R435	1-247-115-00	CARBON	220	5%	1/4W	
R436	1-247-115-00	CARBON	220	5%	1/4W	
R437	1-247-145-00	CARBON	3.9K	5%	1/4W	
R438	1-214-915-00	METAL	120K	1%	1/2W	
R439	1-214-717-00	METAL	330	1%	1/4W	
R440	1-247-843-00	CARBON	3.3K	5%	1/6W	
R441	1-247-843-00	CARBON	3.3K	5%	1/6W	
R442	1-247-843-00	CARBON	3.3K	5%	1/6W	
R443	1-247-834-00	CARBON	1.3K	5%	1/6W	
R444	1-247-827-00	CARBON	680	5%	1/6W	
R445	1-247-833-00	CARBON	1.2K	5%	1/6W	
R449	1-247-855-00	CARBON	10K	5%	1/6W	
R450	1-247-879-00	CARBON	100K	5%	1/6W	
R451	1-247-879-00	CARBON	100K	5%	1/6W	
R452	1-247-879-00	CARBON	100K	5%	1/6W	
R453	1-247-849-00	CARBON	5.6K	5%	1/6W	
R454	1-247-879-00	CARBON	100K	5%	1/6W	
R455	1-215-453-00	METAL	22K	1%	1/6W	
R456	1-215-432-00	METAL	3K	1%	1/6W	
R457	1-215-421-00	METAL	1K	1%	1/6W	
R459	1-247-869-00	CARBON	39K	5%	1/6W	
R460	1-247-855-00	CARBON	10K	5%	1/6W	
R461	1-247-847-00	CARBON	4.7K	5%	1/6W	
R462	1-247-831-00	CARBON	1K	5%	1/6W	
R463	1-247-831-00	CARBON	1K	5%	1/6W	
R464	1-247-107-00	CARBON	100	5%	1/4W	
R465	1-247-107-00	CARBON	100	5%	1/4W	
R466	1-247-107-00	CARBON	100	5%	1/4W	
R467	1-247-103-00	CARBON	68	5%	1/4W	
R468	1-247-103-00	CARBON	68	5%	1/4W	
R469	1-247-103-00	CARBON	68	5%	1/4W	
R470	1-247-899-00	CARBON	680K	5%	1/6W	
R471	1-247-855-00	CARBON	10K	5%	1/6W	
R472	1-247-891-00	CARBON	330K	5%	1/6W	
R475	1-247-131-00	CARBON	1K	5%	1/4W	
R476	1-247-131-00	CARBON	1K	5%	1/4W	
R477	1-247-131-00	CARBON	1K	5%	1/4W	
R478	1-247-131-00	CARBON	1K	5%	1/4W	
R479	1-247-147-00	CARBON	4.7K	5%	1/4W	
R480	1-215-406-00	METAL	240	1%	1/6W	
R481	1-247-805-00	CARBON	82	5%	1/6W	
R482	1-247-843-00	CARBON	3.3K	5%	1/6W	
R483	1-247-843-00	CARBON	3.3K	5%	1/6W	
R486	1-247-815-00	CARBON	220	5%	1/6W	
R487B	1-247-804-00	CARBON	75	5%	1/6W	
R488	1-247-717-11	CARBON	2.2K	5%	1/4W	
R490	1-247-163-00	CARBON	22K	5%	1/4W	
R493	1-247-863-00	CARBON	22K	5%	1/6W	

VARIABLE RESISTOR

RV201	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K
RV202	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K
RV301	1-228-720-00	RES, ADJ, CERAMIC CARBON	1K
RV302	1-228-719-00	RES, ADJ, CERAMIC CARBON	470
RV303	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
RV304	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
RV401	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
RV402	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
RV403	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K
RV404	1-228-719-00	RES, ADJ, CERAMIC CARBON	470
RV405	1-228-719-00	RES, ADJ, CERAMIC CARBON	470
RV407	1-228-722-00	RES, ADJ, CERAMIC CARBON	3.3K

FILTER

SWF201	1-404-479-00	SAWF 45MHZ

TRANSFORMER

T201	1-404-541-11	COIL
T202	1-404-467-00	COIL, VIF
T203	1-404-467-00	COIL, VIF
T204	1-404-505-00	COIL
T205	1-404-489-00	COIL
T301	1-425-786-00	TRANSFORMER, BANDPASS(8PT)

TUNER

TU101 ⚠	1-463-470-00	TUNER, ET (BT-896)

CRYSTAL

X101	1-567-192-11	OSCILLATOR, CERAMIC
X102	1-567-254-11	OSCILLATOR, CERAMIC
X301	1-527-722-00	OSCILLATOR, CRYSTAL

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description			Remark
	*1-613-419-21	M BOARD			
		*******			
		CAPACITOR			
C1301	1-102-978-00	CERAMIC	220PF	5%	50V
C1302	1-102-978-00	CERAMIC	220PF	5%	50V
C1303	1-101-004-00	CERAMIC	0.01MF		50V
C1304	1-123-318-00	ELECT	33MF	20%	16V
C1305	1-106-196-00	MYLAR	0.01MF	10%	100V
C1306	1-123-333-00	ELECT	100MF	20%	16V
C1307	1-102-822-00	CERAMIC	390PF	5%	50V
C1308	1-101-888-00	CERAMIC	68PF	5%	50V
C1309	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1310	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1311	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1312	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1313	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1314	1-102-074-00	CERAMIC	0.001MF	10%	50V
		DIODE			
D1305	8-719-911-19	DIODE 1SS119			
D1306	8-719-911-19	DIODE 1SS119			
D1307	8-719-911-19	DIODE 1SS119			
D1308	8-719-911-19	DIODE 1SS119			
D1310	8-719-911-19	DIODE 1SS119			
D1313	8-719-911-19	DIODE 1SS119			
D1314	8-719-911-19	DIODE 1SS119			
D1316	8-719-911-19	DIODE 1SS119			
D1317	8-719-911-19	DIODE 1SS119			
D1320	8-719-911-19	DIODE 1SS119			
D1321	8-719-911-19	DIODE 1SS119			
D1322	8-719-102-58	DIODE RD3.6E-N2			
		IC			
IC1301	8-759-909-49	IC CX23040			
		COIL			
L1301	1-407-705-00	MICRO INDUCTOR 100UH			
		CONNECTOR			
M1	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P			
M2	*1-564-354-21	PLUG, CONNECTOR (2.5MM) 3P			
M3	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P			
M5	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P			
M8	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P			
		TRANSISTOR			
Q1301	8-729-245-83	TRANSISTOR 2SC2458			
Q1302	8-729-245-83	TRANSISTOR 2SC2458			
Q1303	8-729-245-83	TRANSISTOR 2SC2458			

Ref.No.	Part No.	Description				Remark
		RESISTOR				
R1301	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1302	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1303	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1304	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1305	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1306	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1307	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1308	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1309	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1310	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1311	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1312	1-247-171-00	CARBON	47K	5%	1/4W	
R1313	1-247-179-00	CARBON	100K	5%	1/4W	
R1314	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1315	1-246-529-00	CARBON	220K	5%	1/4W	
R1316	1-247-147-00	CARBON	4.7K	5%	1/4W	
R1317	1-247-133-00	CARBON	1.2K	5%	1/4W	
R1318	1-247-123-00	CARBON	470	5%	1/4W	
R1319	1-247-107-00	CARBON	100	5%	1/4W	
R1320	1-247-155-00	CARBON	10K	5%	1/4W	
R1321	1-247-123-00	CARBON	470	5%	1/4W	
R1322	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1323	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1324	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1325	1-247-155-00	CARBON	10K	5%	1/4W	
R1326	1-247-163-00	CARBON	22K	5%	1/4W	
R1327	1-247-119-00	CARBON	330	5%	1/4W	
R1328	1-247-091-00	CARBON	22	5%	1/4W	
R1329	1-247-159-00	CARBON	15K	5%	1/4W	
R1330	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1331	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1332	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1333	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1334	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1335	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1336	1-247-131-00	CARBON	1K	5%	1/4W	
R1337	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1338	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1339	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1340	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1341	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1342	1-247-717-11	CARBON	2.2K	5%	1/4W	
		SWITCH				
S1301	1-553-976-00	SWITCH, PUSH				
S1302	1-553-976-00	SWITCH, PUSH				
S1303	1-553-976-00	SWITCH, PUSH				
S1304	1-553-976-00	SWITCH, PUSH				
S1305	1-570-061-11	SWITCH, PUSH (8 KEY)				
S1306	1-570-061-11	SWITCH, PUSH (8 KEY)				
S1307	1-570-061-11	SWITCH, PUSH (8 KEY)				

Ref.No.	Part No.	Description			Remark
S1308	1-570-061-11	SWITCH, PUSH (8 KEY)			
S1309	1-553-976-00	SWITCH, PUSH			
S1310	1-570-061-11	SWITCH, PUSH (8 KEY)			
S1311	1-553-976-00	SWITCH, PUSH			
S1312	1-570-061-11	SWITCH, PUSH (8 KEY)			
S1313	1-570-061-11	SWITCH, PUSH (8 KEY)			
S1316	1-570-062-11	SWITCH, PUSH (2 KEY)			
S1317	1-570-062-11	SWITCH, PUSH (2 KEY)			
S1319	1-570-061-11	SWITCH, PUSH (8 KEY)			
S1321	1-554-824-11	SWITCH, PUSH (1 KEY)			
S1322	1-554-824-11	SWITCH, PUSH (1 KEY)			
		CRYSTAL			
X1301	1-527-476-00	OSCILLATOR, CERAMIC			
**********					
	*A-1330-620-A	C BOARD, COMPLETE			
		**********			
	△1-526-644-71	SOCKET, CRT			
		CONNECTOR			
C1	*1-506-371-00	2P PLUG (L)			
C2	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P			
C4	*1-508-765-00	3P PLUG (M)			
		CAPACITOR			
C701	1-102-155-00	CERAMIC	330PF	20%	2KV
C702	1-129-779-00	FILM	0.022MF	20%	1KV
C703	1-123-383-00	ELECT	4.7MF	20%	100V
C704	1-121-759-00	ELECT	4.7MF		250V
C705	1-161-830-00	CERAMIC	0.0047MF		500V
C706	1-129-714-00	FILM	0.01MF	10%	630V
C708	1-102-115-00	CERAMIC	560PF	10%	50V
C709	1-102-115-00	CERAMIC	560PF	10%	50V
C710	1-102-116-00	CERAMIC	680PF	10%	50V
C711	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C712	1-123-356-00	ELECT	10MF	20%	25V
C713	1-102-074-00	CERAMIC	0.001MF	10%	50V
C714	1-102-074-00	CERAMIC	0.001MF	10%	50V
C715	1-102-074-00	CERAMIC	0.001MF	10%	50V
C751	1-102-971-00	CERAMIC	82PF	5%	50V
C752	1-106-178-00	MYLAR	0.0018MF	10%	100V
C753	1-106-212-00	MYLAR	0.047MF	10%	100V
C754	1-123-356-00	ELECT	10MF	20%	25V
C755	1-102-980-00	CERAMIC	270PF	5%	50V
C756	1-106-196-00	MYLAR	0.01MF	10%	100V
C758	1-106-196-00	MYLAR	0.01MF	10%	100V
C760	1-106-196-00	MYLAR	0.01MF	10%	100V
C761	1-106-220-00	MYLAR	0.1MF	10%	100V
C762	1-106-196-00	MYLAR	0.01MF	10%	100V
C763	1-123-356-00	ELECT	10MF	20%	50V

Ref.No.	Part No.	Description			Remark
C764	1-123-321-00	ELECT	220MF	20%	16V
		DIODE			
D701	8-719-911-19	DIODE 1SS119			
D702	8-719-911-19	DIODE 1SS119			
D703	8-719-911-19	DIODE 1SS119			
D704	8-719-911-19	DIODE 1SS119			
D705	8-719-911-19	DIODE 1SS119			
D706	8-719-911-19	DIODE 1SS119			
		COIL			
L701	1-407-701-00	MICRO INDUCTOR 47UH			
L702	1-407-701-00	MICRO INDUCTOR 47UH			
L703	1-407-701-00	MICRO INDUCTOR 47UH			
L704	1-407-701-00	MICRO INDUCTOR 47UH			
L705	1-459-598-11	COIL (WITH CORE) (DRUM TYPE)			
L751	1-407-697-00	MICRO INDUCTOR 22UH			
		TRANSISTOR			
Q701	8-729-245-83	TRANSISTOR 2SC2458			
Q702	8-729-326-11	TRANSISTOR 2SC2611			
Q703	8-729-245-83	TRANSISTOR 2SC2458			
Q704	8-729-326-11	TRANSISTOR 2SC2611			
Q705	8-729-245-83	TRANSISTOR 2SC2458			
Q706	8-729-326-11	TRANSISTOR 2SC2611			
Q751	8-729-245-83	TRANSISTOR 2SC2458			
Q752	8-729-245-83	TRANSISTOR 2SC2458			
Q753	8-729-245-83	TRANSISTOR 2SC2458			
Q754	8-729-103-43	TRANSISTOR 2SB734			
Q755	8-729-177-43	TRANSISTOR 2SD774			
Q756	8-729-177-43	TRANSISTOR 2SD774			
Q757	8-729-245-83	TRANSISTOR 2SC2458			
		RESISTOR			
R701	1-202-846-00	SOLID	470K		1/2W
R702	1-202-720-00	SOLID	1.2M	10%	1/2W
R703	1-202-844-00	SOLID	330K		1/2W
R704	1-202-836-00	SOLID	56K		1/2W
R705	1-202-846-00	SOLID	470K		1/2W
R707	1-202-842-51	SOLID	220K		1/2W
R708	1-202-824-00	SOLID	3.3K		1/2W
R709	1-202-824-00	SOLID	3.3K		1/2W
R711	1-202-549-00	SOLID	100	10%	1/2W
R712	1-202-543-00	SOLID	56	10%	1/2W
R713	1-202-824-00	SOLID	3.3K		1/2W
R714	1-247-107-00	CARBON	100	5%	1/4W
R715	1-247-819-00	CARBON	330	5%	1/6W
R716	1-247-817-00	CARBON	270	5%	1/6W
R717	1-249-421-11	CARBON	2.2K	5%	1/6W
R718	1-247-783-00	CARBON	10	5%	1/6W
R719	1-247-841-00	CARBON	2.7K	5%	1/6W

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Ref.No.	Part No.	Description				Remark
R720	1-247-823-00	CARBON	470	5%	1/6W	
R722	1-206-747-00	METAL OXIDE	8.2K	5%	3W	F
R723	1-247-819-00	CARBON	330	5%	1/6W	
R724	1-247-817-00	CARBON	270	5%	1/6W	
R725	1-249-421-11	CARBON	2.2K	5%	1/6W	
R726	1-247-783-00	CARBON	10	5%	1/6W	
R727	1-247-835-00	CARBON	1.5K	5%	1/6W	
R728	1-247-817-00	CARBON	270	5%	1/6W	
R730	1-206-747-00	METAL OXIDE	8.2K	5%	3W	F
R731	1-247-819-00	CARBON	330	5%	1/6W	
R732	1-247-813-00	CARBON	180	5%	1/6W	
R733	1-249-421-11	CARBON	2.2K	5%	1/6W	
R734	1-247-841-00	CARBON	2.7K	5%	1/6W	
R735	1-247-777-00	CARBON	5.6	5%	1/6W	
R737	1-206-747-00	METAL OXIDE	8.2K	5%	3W	F
R751	1-247-815-00	CARBON	220	5%	1/6W	
R752	1-247-815-00	CARBON	220	5%	1/6W	
R753	1-247-833-00	CARBON	1.2K	5%	1/6W	
R754	1-247-829-00	CARBON	820	5%	1/6W	
R755	1-213-147-00	METAL OXIDE	2.2K	5%	1W	F
R756	1-247-825-00	CARBON	560	5%	1/6W	
R757	1-247-849-00	CARBON	5.6K	5%	1/6W	
R758	1-247-867-00	CARBON	33K	5%	1/6W	
R759	1-247-783-00	CARBON	10	5%	1/6W	
R760	1-247-819-00	CARBON	330	5%	1/6W	
R761	1-247-815-00	CARBON	220	5%	1/6W	
R762	1-247-815-00	CARBON	220	5%	1/6W	
R764	1-247-831-00	CARBON	1K	5%	1/6W	
R765	1-247-775-00	CARBON	4.7	5%	1/6W	
R766	1-247-867-00	CARBON	33K	5%	1/6W	
R767	1-247-855-00	CARBON	10K	5%	1/6W	
R768	1-247-867-00	CARBON	33K	5%	1/6W	
R769	1-247-831-00	CARBON	1K	5%	1/6W	
R771	1-247-871-00	CARBON	47K	5%	1/6W	
R772	1-247-791-00	CARBON	22	5%	1/6W	
R773	1-247-801-00	CARBON	56	5%	1/6W	
R776	1-247-775-00	CARBON	4.7	5%	1/6W	

VARIABLE RESISTOR

RV701	1-226-157-00	RES, ADJ, METAL GLAZE 1M
RV702	1-230-105-00	RES, ADJ, CARBON 3.3K
RV703	1-230-617-11	RES, ADJ, CARBON 1K
RV704	1-230-105-00	RES, ADJ, CARBON 3.3K
RV705	1-230-617-11	RES, ADJ, CARBON 1K
RV706	1-230-105-00	RES, ADJ, CARBON 3.3K
RV707	1-230-105-00	RES, ADJ, CARBON 3.3K

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*A-1345-483-A	D BOARD, COMPLETE	
	**********	
*1-508-765-00	3P PLUG (M)	
*4-329-153-00	HEAT SINK, V OUT	
*4-363-404-00	HOLDER, IC	
4-363-414-00	SPACER, MICA	
4-374-104-01	HOLDER, TR	

CAPACITOR

Ref.No.	Part No.	Description			
C602	1-123-333-00	ELECT	100MF	20%	16V
C603	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C604	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C605	1-123-333-00	ELECT	100MF	20%	25V
C606	1-123-360-00	ELECT	100MF	20%	50V
C607	1-123-356-00	ELECT	10MF	20%	16V
C608	1-123-330-00	ELECT	22MF	20%	16V
C610	1-123-335-00	ELECT	330MF	20%	25V
C611	1-123-360-00	ELECT	100MF	20%	50V
C612	1-123-332-00	ELECT	47MF	20%	16V
C613	1-123-333-00	ELECT	100MF	20%	25V
C614	1-101-002-00	CERAMIC	0.0022MF		50V
C620 ⚠	1-136-311-51	FILM	0.47MF	20%	300V
C621 ⚠	1-130-678-51	FILM	0.047MF	20%	125V
C622 ⚠	1-161-744-51	CERAMIC	0.01MF	20%	400V
C623 ⚠	1-161-953-51	CERAMIC	0.0047MF	20%	400V
C624 ⚠	1-161-953-51	CERAMIC	0.0047MF	20%	400V
C625 ⚠	1-161-744-51	CERAMIC	0.01MF	20%	400V
C626 ⚠	1-161-953-51	CERAMIC	0.0047MF	20%	400V
C627	1-125-295-00	ELECT(BLOCK)	560MF	20%	200V
C628	1-125-295-00	ELECT(BLOCK)	560MF	20%	200V
C629	1-161-953-00	CERAMIC	0.0047MF	20%	400V
C630	1-161-953-00	CERAMIC	0.0047MF	20%	400V
C1501	1-102-117-00	CERAMIC	820PF	10%	50V
C1502	1-162-117-00	CERAMIC	100PF	10%	500V
C1503	1-106-172-00	MYLAR	0.001MF	10%	100V
C1504	1-123-380-00	ELECT	1MF	20%	50V
C1505	1-106-212-00	MYLAR	0.047MF	10%	100V
C1507	1-108-595-00	MYLAR	0.047MF	5%	50V
C1508	1-106-192-00	MYLAR	0.0068MF	10%	100V
C1509	1-106-220-00	MYLAR	0.1MF	10%	100V
C1510	1-106-204-00	MYLAR	0.022MF	10%	100V
C1511	1-123-356-00	ELECT	10MF	20%	16V
C1512	1-123-381-00	ELECT	2.2MF	20%	50V
C1513	1-130-868-00	FILM	0.0056MF	5%	50V
C1514	1-123-356-00	ELECT	10MF	20%	16V
C1515	1-123-356-00	ELECT	10MF	20%	16V
C1516	1-102-820-00	CERAMIC	330PF	5%	50V
C1517	1-123-321-00	ELECT	220MF	20%	16V
C1518	1-123-447-00	ELECT	0.22MF	20%	50V
C1519	1-136-891-11	FILM	0.47MF	5%	50V
C1520	1-123-379-00	ELECT	0.47MF	20%	50V
C1521	1-123-380-00	ELECT	1MF	20%	50V
C1522	1-106-172-00	MYLAR	0.001MF	10%	100V
C1523	1-123-379-00	ELECT	0.47MF	20%	50V
C1524	1-106-204-00	MYLAR	0.022MF	10%	100V
C1525	1-123-369-00	ELECT	4.7MF	20%	50V
C1526	1-123-323-00	ELECT	470MF	20%	16V

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Ref.No.	Part No.	Description			Remark
C1527	1-106-190-00	MYLAR	0.0056MF	10%	100V
C1528	1-106-204-00	MYLAR	0.022MF	10%	100V
C1529	1-102-030-00	CERAMIC	330PF	10%	500V
C1530	1-123-357-00	ELECT	22MF	20%	50V
C1531	1-102-038-00	CERAMIC	0.001MF		500V
C1534	1-123-356-00	ELECT	10MF	20%	16V
C1535	1-106-190-00	MYLAR	0.0056MF	10%	100V
C1536	1-123-232-00	ELECT	4.7MF	20%	50V
C1538	1-102-117-00	CERAMIC	820PF	10%	50V
C1540	1-123-332-00	ELECT	47MF	20%	25V
C1541	1-102-157-00	CERAMIC	560PF	10%	500V
C1542	1-123-332-00	ELECT	47MF	20%	16V
C1543	1-102-030-00	CERAMIC	330PF	10%	500V
C1544	1-108-437-00	MYLAR	0.22MF	10%	200V
C1545	1-108-431-00	MYLAR	0.068MF	10%	200V
C1546	1-123-931-00	ELECT	3.3MF	20%	160V
C1547	1-123-356-00	ELECT	10MF	20%	50V
C1548	1-102-212-00	CERAMIC	820PF	10%	500V
C1549	1-108-429-00	MYLAR	0.047MF	10%	200V
C1550	1-108-429-00	MYLAR	0.047MF	10%	200V
C1551	1-124-609-11	ELECT	470MF	10%	50V
C1552	1-123-380-00	ELECT	1MF	20%	50V
C1553	1-123-357-00	ELECT	22MF	20%	50V
C1555	1-106-172-00	MYLAR	0.001MF	10%	100V
C1556	1-106-188-00	MYLAR	0.0047MF	10%	100V
C1557	1-136-173-00	FILM	0.47MF	5%	50V
C1558	1-102-212-00	CERAMIC	820PF	10%	500V
C1559	1-101-004-00	CERAMIC	0.01MF		50V
C1567	1-102-112-00	CERAMIC	330PF	10%	50V
C1572	1-106-196-00	MYLAR	0.01MF	10%	100V
C1573	1-123-380-00	ELECT	1MF	20%	50V
C1574	1-106-204-00	MYLAR	0.022MF	10%	100V
C1575	1-106-196-00	MYLAR	0.01MF	10%	100V
C1576	1-106-212-00	MYLAR	0.047MF	10%	100V
C1577	1-106-212-00	MYLAR	0.047MF	10%	100V
C1578	1-123-379-00	ELECT	0.47MF	20%	50V
C1579	1-123-330-00	ELECT	22MF	20%	25V
C1591	1-123-356-00	ELECT	10MF	20%	25V
C1592	1-123-356-00	ELECT	10MF	20%	25V
C1593	1-123-379-00	ELECT	0.47MF	20%	50V
C1594	1-106-196-00	MYLAR	0.01MF	10%	100V
C1595	1-106-184-00	MYLAR	0.0033MF	10%	100V
C1596	1-102-117-00	CERAMIC	820PF	10%	50V
C1600	1-106-180-00	MYLAR	0.0022MF	10%	100V
C1601	1-106-208-00	MYLAR	0.033MF	10%	100V
C1602	1-106-184-00	MYLAR	0.0033MF	10%	100V
C1604	1-123-359-00	ELECT	47MF	20%	50V
C1605	1-123-357-00	ELECT	22MF	20%	50V
C1606	1-123-332-00	ELECT	47MF	20%	16V
C1607	1-123-360-00	ELECT	100MF	20%	50V
C1608	1-129-701-00	FILM	0.01MF	5%	100V
C1609	1-106-208-00	MYLAR	0.033MF	10%	100V
C1610	1-123-361-00	ELECT	220MF	20%	50V

Ref.No.	Part No.	Description			Remark
C1611	1-106-212-00	MYLAR	0.047MF	10%	100V
C1651	1-123-364-00	ELECT	1000MF	20%	50V
C1652	1-102-038-00	CERAMIC	0.001MF		500V
C1653	1-108-429-00	MYLAR	0.047MF	10%	200V
C1654	1-102-223-00	CERAMIC	0.0047MF	10%	2KV
C1655	1-102-212-00	CERAMIC	820PF	10%	500V
C1656	1-123-336-00	ELECT	470MF	20%	25V
C1657	1-124-347-00	ELECT	100MF	20%	160V
C1658	1-123-384-00	ELECT	10MF	20%	100V
C1659	1-106-377-00	MYLAR	0.027MF	10%	200V
C1660	1-123-379-00	ELECT	0.47MF	20%	50V
C1661	1-102-244-00	CERAMIC	220PF	10%	500V
C1662	1-106-367-00	MYLAR	0.01MF	10%	200V
C1663 ⚠	1-162-134-51	CERAMIC	470PF	10%	2KV
C1664 ⚠	1-136-317-11	FILM	0.025MF	3%	2KV
C1665 ⚠	1-162-115-51	CERAMIC	330PF	10%	2KV
C1666	1-106-351-00	MYLAR	0.0022MF	10%	200V
C1667 ⚠	1-136-315-51	FILM	0.047MF	5%	630V
C1668 ⚠	1-129-704-51	FILM	0.0015MF	10%	630V
C1669	1-123-332-00	ELECT	47MF	20%	25V
C1670 ⚠	1-136-053-11	FILM	1.2MF	5%	200V
C1671	1-106-172-00	MYLAR	0.001MF	10%	100V
C1672	1-108-431-00	MYLAR	0.068MF	10%	200V
C1673 ⚠	1-136-179-11	FILM	1.5MF	5%	200V
C1674	1-136-184-00	MYLAR	0.68MF	10%	250V
C1675 ⚠	1-162-115-51	CERAMIC	330PF	10%	2KV
C1676	1-108-429-00	MYLAR	0.047MF	10%	200V
C1677	1-102-233-00	CERAMIC	33PF	10%	500V

CONNECTOR

D1	*1-564-353-00	PLUG, CONNECTOR (2.5MM)	2P
D2	*1-564-444-11	PLUG, CONNECTOR (2.5MM)	8P
D3	*1-508-766-00	4P PLUG (M)	
D4	*1-564-441-11	PLUG, CONNECTOR (2.5MM)	5P
D5	*1-564-440-11	PLUG, CONNECTOR (2.5MM)	4P
D6	*1-508-766-00	4P PLUG (M)	
D8	*1-508-765-00	3P PLUG (M)	
D10	*1-508-765-00	3P PLUG (M)	
D11	*1-508-767-00	5P PLUG	
D12	*1-560-125-00	PLUG, CONNECTOR (2.5MM)	5P
D13	*1-508-767-00	5P PLUG	
D14	*1-508-766-00	4P PLUG (M)	
D15	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
D16	*1-508-765-00	3P PLUG (M)	
DY1	*1-508-765-00	3P PLUG (M)	
DY2	*1-508-765-00	3P PLUG (M)	
DY3	*1-508-766-00	4P PLUG (M)	

DIODE

D605	8-719-911-55	DIODE U05G
D606	8-719-911-19	DIODE 1SS119
D607	8-719-911-19	DIODE 1SS119
D609 ⚠	8-719-521-10	DIODE SIVB10-S

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description	Remark
D610	8-719-102-72	DIODE RD5.6E-N3	
D621	8-719-911-55	DIODE U05G	
D622	8-719-911-55	DIODE U05G	
D623	8-719-911-55	DIODE U05G	
D1501	8-719-911-19	DIODE 1SS119	
D1502	8-719-190-00	DIODE RD24E-BZ7	
D1503	8-719-100-35	DIODE RD5.6E-B2	
D1504	8-719-911-55	DIODE U05G	
D1507	8-719-100-35	DIODE RD5.6E-B2	
D1508	8-719-101-58	DIODE RD5.6E-L2	
D1509	8-719-911-19	DIODE 1SS119	
D1510	8-719-911-19	DIODE 1SS119	
D1511	8-719-911-19	DIODE 1SS119	
D1512	8-719-911-19	DIODE 1SS119	
D1513	8-719-300-76	DIODE RH1A	
D1514	8-719-200-02	DIODE 10E2	
D1515	8-719-911-55	DIODE U05G	
D1516	8-719-200-02	DIODE 10E2	
D1517	8-719-911-19	DIODE 1SS119	
D1651	8-719-300-38	DIODE GU-3A	
D1652	8-719-300-91	DIODE EM1ZS	
D1653⚠	8-719-300-76	DIODE RH1A	
D1654	8-719-901-19	DIODE V11N	
D1655	8-719-305-15	DIODE GH3F	
D1656	8-719-305-15	DIODE GH3F	
D1657	8-719-900-26	DIODE ERD29-08J	
D1658	8-719-911-55	DIODE U05G	
D1659	8-719-911-55	DIODE U05G	
D1660	8-719-300-65	DIODE ES1F	
		FUSE	
F601 ⚠	1-532-627-11	FUSE, GLASS TUBE 7A/125V	
	1-517-072-00	LAMP HOLDER, F601	
		IC	
IC1501	8-759-100-60	IC UPC1377C	
IC1502	8-759-905-39	IC TDA1082	
		COIL	
L1501 ⚠	1-459-059-12	COIL, DUST CORE	
L1504	1-408-225-00	MICRO INDUCTOR 3.3UH	
L1505	1-408-225-00	MICRO INDUCTOR 3.3UH	
L1506	1-408-225-00	MICRO INDUCTOR 3.3UH	
L1507 ⚠	1-459-104-11	COIL, DUST CORE	
L1508	1-407-877-00	MICRO INDUCTOR 15MMH	
L1509	1-459-119-00	COIL, DUST CORE(ARC)	
L1512	1-459-215-00	CORE COIL	
L1513	1-459-104-00	COIL, DUST CORE	
L1514 ⚠	1-459-308-31	COIL, HORIZONTAL LINEARITY	
L1515 ⚠	1-421-390-11	COIL, FERRITE (PMC)	
L1516	1-408-235-00	MICRO INDUCTOR 2.2MMH	
L1517	1-407-365-00	COIL, CHOKE	
L1518	1-407-365-00	COIL, CHOKE	
L1519	1-407-365-00	COIL, CHOKE	
L1520	1-407-365-00	COIL, CHOKE	
L1522 ⚠	1-459-485-11	COIL, CHOKE	
		TRANSISTOR	
Q602	8-729-965-22	TRANSISTOR 2SC1652	
Q603	8-729-378-84	TRANSISTOR 2SD788	
Q1501	8-729-204-83	TRANSISTOR 2SA1048GR	
Q1502	8-729-245-83	TRANSISTOR 2SC2458	
Q1503	8-729-245-83	TRANSISTOR 2SC2458	
Q1504	8-729-245-83	TRANSISTOR 2SC2458	
Q1506	8-729-204-83	TRANSISTOR 2SA1048GR	
Q1507 ⚠	8-729-169-02	TRANSISTOR 2SC2690A	
Q1508 ⚠	8-729-122-02	TRANSISTOR 2SA1220A	
Q1509	8-729-195-82	TRANSISTOR 2SC2958	
Q1510	8-729-204-83	TRANSISTOR 2SA1048GR	
Q1511	8-729-245-83	TRANSISTOR 2SC2458	
Q1513	8-729-245-83	TRANSISTOR 2SC2458	
Q1514	8-729-245-83	TRANSISTOR 2SC2458	
Q1515	8-729-245-83	TRANSISTOR 2SC2458	
Q1516	8-729-245-83	TRANSISTOR 2SC2458	
Q1517	8-729-245-83	TRANSISTOR 2SC2458	
Q1521	8-729-122-02	TRANSISTOR 2SA1220A	
Q1522	8-729-169-02	TRANSISTOR 2SC2690A	
Q1523	8-729-378-84	TRANSISTOR 2SD788	
Q1524 ⚠	8-729-901-72	TRANSISTOR 2SC3317	
	4-342-013-00	SPACER, MICA, Q1524	
Q1525	8-729-245-83	TRANSISTOR 2SC2458	
Q1527	8-729-175-22	TRANSISTOR 2SC2752	
Q1528 ⚠	8-729-300-90	TRANSISTOR 2SD1497-06	
		RESISTOR	
R602	1-247-717-11	CARBON 2.2K 5% 1/4W	
R603	1-247-717-11	CARBON 2.2K 5% 1/4W	
R604 ⚠	1-213-135-61	METAL OXIDE 220 5% 1W	F
R606 ⚠	1-247-040-11	CARBON 1K 5% 1/8W	F
R607	1-247-855-00	CARBON 10K 5% 1/6W	
R608	1-247-131-00	CARBON 1K 5% 1/4W	
R620 ⚠	1-202-723-51	SOLID 2.2M 10% 1/2W	
R621 ⚠	1-202-723-51	SOLID 2.2M 10% 1/2W	
R622 ⚠	1-205-768-11	CEMENTED 1.2 5% 15W	
R623	1-246-525-00	CARBON 150K 5% 1/4W	
R624	1-246-525-00	CARBON 150K 5% 1/4W	
R1500	1-247-831-00	CARBON 1K 5% 1/6W	
R1501	1-247-155-00	CARBON 10K 5% 1/4W	
R1502	1-206-700-00	METAL OXIDE 33K 5% 2W	F
R1503	1-247-815-00	CARBON 220 5% 1/6W	
R1504	1-247-819-00	CARBON 330 5% 1/6W	
R1505	1-247-845-00	CARBON 3.9K 5% 1/6W	
R1506	1-247-107-00	CARBON 100 5% 1/4W	
R1507	1-246-536-00	CARBON 430K 5% 1/4W	
R1508	1-247-163-00	CARBON 22K 5% 1/4W	
R1509	1-247-863-00	CARBON 22K 5% 1/6W	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

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Ref.No.	Part No.	Description				Remark
R1510	1-247-877-00	CARBON	82K	5%	1/6W	
R1511	1-247-868-00	CARBON	36K	5%	1/6W	
R1512	1-247-819-00	CARBON	330	5%	1/6W	
R1513	1-247-177-00	CARBON	82K	5%	1/4W	
R1514	1-247-143-00	CARBON	3.3K	5%	1/4W	
R1515	1-247-857-00	CARBON	12K	5%	1/6W	
R1516	1-247-867-00	CARBON	33K	5%	1/6W	
R1517	1-247-827-00	CARBON	680	5%	1/6W	
R1518	1-247-827-00	CARBON	680	5%	1/6W	
R1519	1-247-851-00	CARBON	6.8K	5%	1/6W	
R1520	1-247-135-00	CARBON	1.5K	5%	1/4W	
R1521	1-247-177-00	CARBON	82K	5%	1/4W	
R1522	1-215-463-00	METAL	56K	1%	1/6W	
R1523	1-247-857-00	CARBON	12K	5%	1/6W	
R1524	1-247-158-00	CARBON	13K	5%	1/4W	
R1525	1-247-845-00	CARBON	3.9K	5%	1/6W	
R1526	1-247-867-00	CARBON	33K	5%	1/6W	
R1527	1-247-155-00	CARBON	10K	5%	1/4W	
R1528	1-247-839-00	CARBON	2.2K	5%	1/6W	
R1529	1-214-753-00	METAL	10K	1%	1/4W	
R1530	1-214-750-00	METAL	7.5K	1%	1/4W	
⊠R1531⚠		METAL			1/4W	
R1532	1-247-855-00	CARBON	10K	5%	1/6W	
R1533	1-206-692-00	METAL OXIDE	15K	5%	2W	F
⊠R1534⚠		METAL			1/4W	
⊠R1535⚠		METAL			1/4W	
R1537	1-214-783-00	METAL	180K	1%	1/4W	
R1538	1-214-753-00	METAL	10K	1%	1/4W	
R1539	1-247-177-00	CARBON	82K	5%	1/4W	
R1540	1-246-545-00	CARBON	1M	5%	1/4W	
R1541	1-202-723-00	SOLID	2.2M	10%	1/2W	
R1543	1-214-750-00	METAL	7.5K	1%	1/4W	
R1544	1-214-779-00	METAL	120K	1%	1/4W	
R1545	1-214-781-00	METAL	150K	1%	1/4W	
R1546	1-247-831-00	CARBON	1K	5%	1/6W	
R1547	1-214-766-00	METAL	36K	1%	1/4W	
R1548	1-247-119-00	CARBON	330	5%	1/4W	
R1549	1-247-833-00	CARBON	1.2K	5%	1/6W	
R1550	1-213-161-00	METAL OXIDE	33K	5%	1W	F
R155I	1-247-131-00	CARBON	1K	5%	1/4W	
R1552	1-247-109-00	CARBON	120	5%	1/4W	
R1553	1-213-155-00	METAL OXIDE	10K	5%	1W	F
R1554	1-247-807-00	CARBON	100	5%	1/6W	
R1555	1-247-879-00	CARBON	100K	5%	1/6W	
⊠R1556⚠		CARBON			1/4W	
R1558	1-247-903-00	CARBON	1M	5%	1/6W	
R1559	1-247-903-00	CARBON	1M	5%	1/6W	
R1560⚠	1-247-033-11	CARBON	100	5%	1/8W	F
R1561⚠	1-246-993-11	CARBON	470	5%	1/8W	F
R1562	1-213-145-00	METAL OXIDE	1.5K	5%	1W	F
R1563	1-212-361-00	METAL OXIDE	1.2	5%	1W	F
R1564	1-212-361-00	METAL OXIDE	1.2	5%	1W	F
R1565⚠	1-246-984-11	CARBON	22	5%	1/8W	F
R1566	1-247-034-00	CARBON	220	5%	1/8W	F
R1567	1-213-141-00	METAL OXIDE	680	5%	1W	F
R1568	1-247-797-00	CARBON	39	5%	1/8W	F
R1569	1-213-148-00	METAL OXIDE	2.7K	5%	1W	F
R1570	1-247-835-00	CARBON	1.5K	5%	1/6W	
R1571	1-247-167-00	CARBON	33K	5%	1/4W	
R1572	1-247-873-00	CARBON	56K	5%	1/6W	
R1573	1-247-855-00	CARBON	10K	5%	1/6W	
R1574	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1575	1-247-835-00	CARBON	1.5K	5%	1/6W	
R1576	1-247-815-00	CARBON	220	5%	1/6W	
R1577	1-247-131-00	CARBON	1K	5%	1/4W	
⊠R1578⚠		METAL			1/4W	
R1579	1-215-411-00	METAL	390	1%	1/6W	
R1580	1-247-823-00	CARBON	470	5%	1/6W	
R1581	1-247-837-00	CARBON	1.8K	5%	1/6W	
R1582	1-246-485-25	CARBON	3.3K	5%	1/4W	
R1583	1-212-364-00	METAL OXIDE	2.2	5%	1W	F
R1584	1-213-147-00	METAL OXIDE	2.2K	5%	1W	F
R1585	1-247-171-00	CARBON	47K	5%	1/4W	
R1586	1-206-463-00	METAL OXIDE	10	5%	2W	F
R1587	1-206-463-00	METAL OXIDE	10	5%	2W	F
R1588	1-247-161-00	CARBON	18K	5%	1/4W	
R1589	1-247-855-00	CARBON	10K	5%	1/6W	
R1590	1-249-421-11	CARBON	2.2K	5%	1/6W	
R1591	1-247-849-00	CARBON	5.6K	5%	1/6W	
R1592	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1593	1-247-831-00	CARBON	1K	5%	1/6W	
R1594	1-247-857-00	CARBON	12K	5%	1/6W	
R1595	1-247-875-00	CARBON	68K	5%	1/6W	
R1596	1-247-879-00	CARBON	100K	5%	1/6W	
R1597	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1598	1-247-875-00	CARBON	68K	5%	1/6W	
R1599	1-249-421-11	CARBON	2.2K	5%	1/6W	
R1600	1-247-855-00	CARBON	10K	5%	1/6W	
R1601	1-247-867-00	CARBON	33K	5%	1/6W	
R1602	1-247-717-11	CARBON	2.2K	5%	1/4W	
R1603	1-247-167-00	CARBON	33K	5%	1/4W	
R1604	1-247-855-00	CARBON	10K	5%	1/6W	
R1605	1-247-871-00	CARBON	47K	5%	1/6W	
R1606	1-247-871-00	CARBON	47K	5%	1/6W	
R1607	1-247-833-00	CARBON	1.2K	5%	1/6W	
R1608	1-247-875-00	CARBON	68K	5%	1/6W	
R1609	1-247-875-00	CARBON	68K	5%	1/6W	
R1610	1-247-855-00	CARBON	10K	5%	1/6W	
R1611	1-247-831-00	CARBON	1K	5%	1/6W	
R1612	1-247-107-00	CARBON	100	5%	1/4W	
R1613	1-247-875-00	CARBON	68K	5%	1/6W	
R1614	1-247-855-00	CARBON	10K	5%	1/6W	
R1616	1-247-143-00	CARBON	3.3K	5%	1/4W	
R1617	1-247-863-00	CARBON	22K	5%	1/6W	
R1618	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1619	1-247-863-00	CARBON	22K	5%	1/6W	

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description				Remark
R1620	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1621	1-247-799-00	CARBON	47	5%	1/8W	F
R1622	1-247-799-00	CARBON	47	5%	1/8W	F
R1623 ⚠	1-246-982-11	CARBON	10	5%	1/8W	F
R1624	1-247-855-00	CARBON	10K	5%	1/6W	
R1625	1-247-871-00	CARBON	47K	5%	1/6W	
R1626 ⚠	1-246-985-11	CARBON	33	5%	1/8W	F
R1627	1-247-791-00	CARBON	22	5%	1/8W	F
R1631	1-247-153-00	CARBON	8.2K	5%	1/4W	
R1632	1-247-877-00	CARBON	82K	5%	1/6W	
R1633	1-247-863-00	CARBON	22K	5%	1/6W	
R1634	1-247-863-00	CARBON	22K	5%	1/6W	
R1635	1-214-775-00	METAL	82K	1%	1/4W	
R1636	1-247-861-00	CARBON	18K	5%	1/6W	
R1637	1-247-857-00	CARBON	12K	5%	1/6W	
R1638	1-247-815-00	CARBON	220	5%	1/6W	
R1639	1-213-133-00	METAL OXIDE	150	5%	1W	F
R1640	1-247-817-00	CARBON	270	5%	1/6W	
R1641	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1642	1-247-845-00	CARBON	3.9K	5%	1/6W	
R1643	1-247-825-00	CARBON	560	5%	1/6W	
R1644	1-247-807-00	CARBON	100	5%	1/6W	
R1649	1-247-111-00	CARBON	150	5%	1/4W	
R1651 ⚠	1-246-979-11	CARBON	1.2	5%	1/8W	F
R1652 ⚠	1-246-979-11	CARBON	1.2	5%	1/8W	F
R1653	1-206-511-00	METAL OXIDE	10	5%	3W	F
R1654 ⚠	1-213-146-61	METAL OXIDE	1.8K	5%	1W	F
R1655	1-247-853-00	CARBON	8.2K	5%	1/6W	
R1656 ⚠	1-206-733-61	METAL OXIDE	2.2K	5%	3W	F
R1657	1-207-453-00	WIREWOUND	0.15	10%	1/2W	
R1658	1-247-835-00	CARBON	1.5K	5%	1/6W	
R1659	1-247-696-11	CARBON	47	5%	1/4W	
R1660	1-206-658-00	METAL OXIDE	560	5%	2W	F
R1661	1-213-141-00	METAL OXIDE	680	5%	1W	F
R1662	1-213-128-00	METAL OXIDE	56	5%	1W	F
R1663	1-212-368-00	METAL OXIDE	4.7	5%	1W	F
R1664 ⚠	1-247-035-11	CARBON	270	5%	1/8W	F
R1665	1-206-485-00	METAL OXIDE	82	5%	2W	F
R1666	1-206-485-00	METAL OXIDE	82	5%	2W	F
R1667	1-247-756-11	CARBON	2.2K	5%	1/2W	F

VARIABLE RESISTOR

RV1501	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K
RV1503	1-228-717-00	RES, ADJ, CERAMIC CARBON	220
RV1504	1-228-727-00	RES, ADJ, CERAMIC CARBON	47K
RV1505	1-228-727-00	RES, ADJ, CERAMIC CARBON	47K
RV1506	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
RV1507	1-228-727-00	RES, ADJ, CERAMIC CARBON	47K
RV1508	1-228-724-00	RES, ADJ, CERAMIC CARBON	10K
RV1509	1-228-727-00	RES, ADJ, CERAMIC CARBON	47K
RV1510	1-228-728-00	RES, ADJ, CERAMIC CARBON	100K
RV1511	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K
RV1512	1-228-718-00	RES, ADJ, CERAMIC CARBON	330
RV1513	1-228-720-00	RES, ADJ, CERAMIC CARBON	1K

Ref.No.	Part No.	Description	Remark
		RELAY	
RY601 ⚠	1-515-491-11	RELAY (POWER)	
		SPARK GAP	
SG1501	1-519-063-XX	DISCHARGING GAP	
		TRANSFORMER	
T601 ⚠	1-448-019-11	TRANSFORMER, POWER	
T602 ⚠	1-421-730-11	LFT	
T1502	1-437-131-00	TRANSFORMER, DRIVE	
T1503	1-413-059-00	TRANSFORMER, FERRITE (DFT)	
		THERMISTOR	
THP601 ⚠	1-806-214-31	THERMISTER, POSITIVE	

****

*A-1381-024-A U BOARD, COMPLETE
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1-536-889-11 TERMINAL BOARD, INPUT/OUTPUT
*1-560-984-00 CONNECTOR (PLUG) 34P

CAPACITOR

C801	1-123-380-00	ELECT	1MF	20%	50V
C802	1-123-380-00	ELECT	1MF	20%	50V
C803	1-123-380-00	ELECT	1MF	20%	50V
C804	1-123-380-00	ELECT	1MF	20%	50V
C805	1-123-380-00	ELECT	1MF	20%	50V
C806	1-123-611-00	ELECT	1MF	20%	50V
C807	1-123-611-00	ELECT	1MF	20%	50V
C808	1-123-324-00	ELECT	1000MF	20%	16V
C809	1-123-324-00	ELECT	1000MF	20%	16V
C810	1-123-324-00	ELECT	1000MF	20%	16V
C811	1-123-611-00	ELECT	1MF	20%	50V
C812	1-123-611-00	ELECT	1MF	20%	50V
C813	1-123-380-00	ELECT	1MF	20%	50V
C814	1-123-380-00	ELECT	1MF	20%	50V
C815	1-123-380-00	ELECT	1MF	20%	50V
C816	1-123-380-00	ELECT	1MF	20%	50V
C817	1-123-307-00	ELECT	100MF	20%	6.3V
C818	1-123-318-00	ELECT	33MF	20%	16V
C819	1-123-308-00	ELECT	220MF	20%	10V
C820	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C821	1-102-965-00	CERAMIC	39PF	5%	50V
C822	1-102-965-00	CERAMIC	39PF	5%	50V
C823	1-102-965-00	CERAMIC	39PF	5%	50V
C824	1-123-820-00	ELECT	33MF	20%	16V
C825	1-123-820-00	ELECT	33MF	20%	16V
C826	1-123-820-00	ELECT	33MF	20%	16V
C827	1-102-824-00	CERAMIC	470PF	5%	50V
C829	1-101-880-00	CERAMIC	47PF	5%	50V
C830	1-123-333-00	ELECT	100MF	20%	16V

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description				Remark
C832	1-123-622-00	ELECT	22MF	20%	16V	
C834	1-123-318-00	ELECT	33MF	20%	16V	
C835	1-123-820-00	ELECT	33MF	20%	16V	
C836	1-123-820-00	ELECT	33MF	20%	16V	
C837	1-123-318-00	ELECT	33MF	20%	16V	
C839	1-123-380-00	ELECT	1MF	20%	50V	
C842	1-123-321-00	ELECT	220MF	20%	16V	
C843	1-123-318-00	ELECT	33MF	20%	16V	
C845	1-123-356-00	ELECT	10MF	20%	16V	
C846	1-119-358-00	ELECT	22MF		16V	
C847	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C851	1-123-333-00	ELECT	100MF	20%	16V	
C852	1-123-318-00	ELECT	33MF	20%	16V	
C853	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C880	1-123-307-00	ELECT	100MF	20%	6.3V	
		DIODE				
D801	8-719-102-73	DIODE RD6.2E-N1				
D802	8-719-102-73	DIODE RD6.2E-N1				
D803	8-719-102-73	DIODE RD6.2E-N1				
D806	8-719-102-73	DIODE RD6.2E-N1				
D807	8-719-911-19	DIODE 1SS119				
D808	8-719-911-19	DIODE 1SS119				
D809	8-719-911-19	DIODE 1SS119				
D814	8-719-911-19	DIODE 1SS119				
D815	8-719-911-19	DIODE 1SS119				
D816	8-719-911-19	DIODE 1SS119				
D817	8-719-911-19	DIODE 1SS119				
D818	8-719-102-73	DIODE RD6.2E-N1				
		IC				
IC801	8-759-240-52	IC TC4052BP				
IC802	8-759-240-52	IC TC4052BP				
IC803	8-759-900-09	IC SN74LS09N				
IC804	8-759-140-53	IC UPD4053BC				
IC805	8-759-240-52	IC TC4052BP				
IC806	8-759-900-05	IC SN74LS05N				
IC807	8-759-145-58	IC UPC4558C				
		COIL				
L801	1-408-235-00	MICRO INDUCTOR 2.2MMH				
L802	1-408-417-00	MICRO INDUCTOR 47UH				
		TRANSISTOR				
Q802	8-729-204-83	TRANSISTOR 2SA1048GR				
Q803	8-729-204-83	TRANSISTOR 2SA1048GR				
Q804	8-729-204-83	TRANSISTOR 2SA1048GR				
Q805	8-729-245-83	TRANSISTOR 2SC2458				
Q806	8-729-245-83	TRANSISTOR 2SC2458				
Q807	8-729-245-83	TRANSISTOR 2SC2458				
Q812	8-729-245-83	TRANSISTOR 2SC2458				
Q813	8-729-245-83	TRANSISTOR 2SC2458				
Q814	8-729-245-83	TRANSISTOR 2SC2458				
Q815	8-729-245-83	TRANSISTOR 2SC2458				
Q816	8-729-245-83	TRANSISTOR 2SC2458				

Ref.No.	Part No.	Description				Remark
Q817	8-729-245-83	TRANSISTOR 2SC2458				
Q818	8-729-245-83	TRANSISTOR 2SC2458				
Q819	8-729-245-83	TRANSISTOR 2SC2458				
Q820	8-729-245-83	TRANSISTOR 2SC2458				
Q821	8-729-245-83	TRANSISTOR 2SC2458				
Q822	8-729-204-83	TRANSISTOR 2SA1048GR				
Q823	8-729-204-83	TRANSISTOR 2SA1048GR				
Q824	8-729-245-83	TRANSISTOR 2SC2458				
Q825	8-729-204-83	TRANSISTOR 2SA1048GR				
Q826	8-729-245-83	TRANSISTOR 2SC2458				
Q827	8-729-245-83	TRANSISTOR 2SC2458				
Q828	8-729-245-83	TRANSISTOR 2SC2458				
Q829	8-729-204-83	TRANSISTOR 2SA1048GR				
Q830	8-729-204-83	TRANSISTOR 2SA1048GR				
Q831	8-729-204-83	TRANSISTOR 2SA1048GR				
Q832	8-729-204-83	TRANSISTOR 2SA1048GR				
Q833	8-729-245-83	TRANSISTOR 2SC2458				
Q834	8-729-245-83	TRANSISTOR 2SC2458				
Q835	8-729-245-83	TRANSISTOR 2SC2458				
		RESISTOR				
R801	1-247-123-00	CARBON	470	5%	1/4W	
R802	1-247-873-00	CARBON	56K	5%	1/6W	
R803	1-247-873-00	CARBON	56K	5%	1/6W	
R804	1-247-115-00	CARBON	220	5%	1/4W	
R805	1-247-879-00	CARBON	100K	5%	1/6W	
R806	1-247-873-00	CARBON	56K	5%	1/6W	
R807	1-247-873-00	CARBON	56K	5%	1/6W	
R808	1-247-179-00	CARBON	100K	5%	1/4W	
R809	1-246-543-00	CARBON	820K	5%	1/4W	
R810	1-247-831-00	CARBON	1K	5%	1/6W	
R811	1-247-115-00	CARBON	220	5%	1/4W	
R812	1-247-847-00	CARBON	4.7K	5%	1/6W	
R813	1-247-869-00	CARBON	39K	5%	1/6W	
R814	1-247-847-00	CARBON	4.7K	5%	1/6W	
R815	1-247-855-00	CARBON	10K	5%	1/6W	
R816	1-247-855-00	CARBON	10K	5%	1/6W	
R817	1-247-123-00	CARBON	470	5%	1/4W	
R818	1-247-131-00	CARBON	1K	5%	1/4W	
R819	1-247-131-00	CARBON	1K	5%	1/4W	
R820	1-247-901-00	CARBON	820K	5%	1/6W	
R821	1-247-869-00	CARBON	39K	5%	1/6W	
R822	1-247-115-00	CARBON	220	5%	1/4W	
R823	1-247-107-00	CARBON	100	5%	1/4W	
R824	1-247-117-00	CARBON	270	5%	1/4W	
R825	1-247-815-00	CARBON	220	5%	1/6W	
R827	1-247-893-00	CARBON	390K	5%	1/6W	
R828	1-247-893-00	CARBON	390K	5%	1/6W	
R829	1-246-507-00	CARBON	27K	5%	1/4W	
R830	1-246-507-00	CARBON	27K	5%	1/4W	
R831	1-246-507-00	CARBON	27K	5%	1/4W	
R832	1-246-507-00	CARBON	27K	5%	1/4W	
R833	1-246-507-00	CARBON	27K	5%	1/4W	
R834	1-247-865-00	CARBON	27K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R835	1-247-893-00	CARBON	390K	5%	1/6W	
R837	1-247-129-00	CARBON	820	5%	1/4W	
R838	1-247-895-00	CARBON	470K	5%	1/6W	
R839	1-246-537-00	CARBON	470K	5%	1/4W	
R840	1-247-104-00	CARBON	75	5%	1/4W	
R841	1-247-149-00	CARBON	5.6K	5%	1/4W	
R842	1-247-149-00	CARBON	5.6K	5%	1/4W	
R843	1-247-155-00	CARBON	10K	5%	1/4W	
R844	1-247-155-00	CARBON	10K	5%	1/4W	
R845	1-247-895-00	CARBON	470K	5%	1/6W	
R846	1-247-104-00	CARBON	75	5%	1/4W	
R847	1-246-507-00	CARBON	27K	5%	1/4W	
R848	1-246-507-00	CARBON	27K	5%	1/4W	
R849	1-247-131-00	CARBON	1K	5%	1/4W	
R850	1-247-131-00	CARBON	1K	5%	1/4W	
R851	1-247-155-00	CARBON	10K	5%	1/4W	
R852	1-247-863-00	CARBON	22K	5%	1/6W	
R853	1-246-463-00	CARBON	390	5%	1/4W	
R854	1-247-104-00	CARBON	75	5%	1/4W	
R855	1-247-147-00	CARBON	4.7K	5%	1/4W	
R856	1-247-131-00	CARBON	1K	5%	1/4W	
R857	1-247-161-00	CARBON	18K	5%	1/4W	
R858	1-247-877-00	CARBON	82K	5%	1/6W	
R859	1-247-831-00	CARBON	1K	5%	1/6W	
R860	1-247-115-00	CARBON	220	5%	1/4W	
R861	1-247-147-00	CARBON	4.7K	5%	1/4W	
R862	1-247-831-00	CARBON	1K	5%	1/6W	
R863	1-247-835-00	CARBON	1.5K	5%	1/6W	
R864	1-247-115-00	CARBON	220	5%	1/4W	
R865	1-247-115-00	CARBON	220	5%	1/4W	
R866	1-247-835-00	CARBON	1.5K	5%	1/6W	
R867	1-247-835-00	CARBON	1.5K	5%	1/6W	
R868	1-247-831-00	CARBON	1K	5%	1/6W	
R869	1-247-115-00	CARBON	220	5%	1/4W	
R870	1-247-115-00	CARBON	220	5%	1/4W	
R872	1-247-115-00	CARBON	220	5%	1/4W	
R873	1-247-115-00	CARBON	220	5%	1/4W	
R874	1-247-823-00	CARBON	470	5%	1/6W	
R875	1-249-459-11	CARBON	12K	5%	1/4W	
R876	1-247-829-00	CARBON	820	5%	1/6W	
R879	1-247-823-00	CARBON	470	5%	1/6W	
R881	1-247-887-00	CARBON	220K	5%	1/6W	
R882	1-247-887-00	CARBON	220K	5%	1/6W	
R883	1-247-855-00	CARBON	10K	5%	1/6W	
R884	1-247-855-00	CARBON	10K	5%	1/6W	
R885	1-247-863-00	CARBON	22K	5%	1/6W	
R886	1-247-163-00	CARBON	22K	5%	1/4W	
R887	1-247-863-00	CARBON	22K	5%	1/6W	
R888	1-247-863-00	CARBON	22K	5%	1/6W	
R889	1-247-831-00	CARBON	1K	5%	1/6W	
R891	1-247-103-00	CARBON	68	5%	1/4W	
R892	1-247-107-00	CARBON	100	5%	1/4W	
R893	1-247-115-00	CARBON	220	5%	1/4W	
R894	1-247-123-00	CARBON	470	5%	1/4W	

Ref.No.	Part No.	Description				Remark
R895	1-247-155-00	CARBON	10K	5%	1/4W	
R896	1-247-155-00	CARBON	10K	5%	1/4W	
R897	1-247-855-00	CARBON	10K	5%	1/6W	
R898	1-247-855-00	CARBON	10K	5%	1/6W	
R899	1-247-115-00	CARBON	220	5%	1/4W	
R900	1-247-107-00	CARBON	100	5%	1/4W	
R901	1-247-131-00	CARBON	1K	5%	1/4W	
R902	1-247-131-00	CARBON	1K	5%	1/4W	
R903	1-247-105-00	CARBON	82	5%	1/4W	
R904	1-247-105-00	CARBON	82	5%	1/4W	
R905	1-247-105-00	CARBON	82	5%	1/4W	
R906	1-247-115-00	CARBON	220	5%	1/4W	
R908	1-247-861-00	CARBON	18K	5%	1/6W	
R909	1-247-867-00	CARBON	33K	5%	1/6W	
R910	1-247-861-00	CARBON	18K	5%	1/6W	
R911	1-247-879-00	CARBON	100K	5%	1/6W	
R912	1-247-879-00	CARBON	100K	5%	1/6W	
R913	1-247-847-00	CARBON	4.7K	5%	1/6W	
R914	1-247-847-00	CARBON	4.7K	5%	1/6W	
R915	1-247-823-00	CARBON	470	5%	1/6W	
R916	1-247-823-00	CARBON	470	5%	1/6W	
R917	1-247-827-00	CARBON	680	5%	1/6W	
R918	1-247-835-00	CARBON	1.5K	5%	1/6W	
R919	1-247-855-00	CARBON	10K	5%	1/6W	
R921	1-247-831-00	CARBON	1K	5%	1/6W	
R922	1-247-131-00	CARBON	1K	5%	1/4W	
R923	1-247-871-00	CARBON	47K	5%	1/6W	
R924	1-247-871-00	CARBON	47K	5%	1/6W	
R925	1-247-893-00	CARBON	390K	5%	1/6W	
R926	1-247-855-00	CARBON	10K	5%	1/6W	
R928	1-247-831-00	CARBON	1K	5%	1/6W	
R929	1-247-131-00	CARBON	1K	5%	1/4W	
R930	1-247-131-00	CARBON	1K	5%	1/4W	
R931	1-247-131-00	CARBON	1K	5%	1/4W	
R932	1-247-879-00	CARBON	100K	5%	1/6W	
R934	1-247-879-00	CARBON	100K	5%	1/6W	
R938	1-247-143-00	CARBON	3.3K	5%	1/4W	
R939	1-247-837-00	CARBON	1.8K	5%	1/6W	
R940	1-247-879-00	CARBON	100K	5%	1/6W	
R941	1-247-131-00	CARBON	1K	5%	1/4W	
R942	1-247-104-00	CARBON	75	5%	1/4W	
R943	1-247-104-00	CARBON	75	5%	1/4W	
R944	1-247-104-00	CARBON	75	5%	1/4W	
R947	1-247-131-00	CARBON	1K	5%	1/4W	
R949	1-247-131-00	CARBON	1K	5%	1/4W	
R950	1-247-131-00	CARBON	1K	5%	1/4W	
R951	1-246-463-25	CARBON	390	5%	1/4W	
R952	1-246-463-25	CARBON	390	5%	1/4W	
R955	1-246-535-00	CARBON	390K	5%	1/4W	
R956	1-247-143-00	CARBON	3.3K	5%	1/4W	
R957	1-247-815-00	CARBON	220	5%	1/6W	
R958	1-247-143-00	CARBON	3.3K	5%	1/4W	
R959	1-247-815-00	CARBON	220	5%	1/6W	

U X

Ref.No.	Part No.	Description				Remark
		VARIABLE RESISTOR				
RV801	1-228-848-00	RES, VAR, CARBON 10K				
RV802	1-228-490-00	RES, VAR, CARBON 10K				
		SWITCH				
S801	1-553-651-00	SWITCH, SLIDE				
S802	1-553-651-00	SWITCH, SLIDE				
		CONNECTOR				
U1	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P				
U2	*1-564-444-11	PLUG, CONNECTOR (2.5MM) 8P				
U3	*1-564-452-41	PLUG, CONNECTOR (2.5MM) 4P				
U4	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
U5	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
U6	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P				
U7	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P				
U8	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P				
U9	*1-564-453-11	PLUG, CONNECTOR (2.5MM) 5P				
U10	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P				
U11	*1-564-453-11	PLUG, CONNECTOR (2.5MM) 5P				
U13	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P				
**********						
	*A-1386-014-A	X BOARD, COMPLETE **********				
	4-309-378-00	SPACER				
		CAPACITOR				
C1101	1-123-318-00	ELECT	33MF	20%	16V	
C1102	1-123-356-00	ELECT	10MF	20%	16V	
C1103	1-123-318-00	ELECT	33MF	20%	16V	
C1104	1-123-356-00	ELECT	10MF	20%	16V	
C1105	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1106	1-123-356-00	ELECT	10MF	20%	16V	
C1107	1-123-356-00	ELECT	10MF	20%	16V	
C1108	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1109	1-106-196-00	MYLAR	0.01MF	10%	100V	
C1110	1-123-380-00	ELECT	1MF	20%	50V	
C1111	1-106-212-00	MYLAR	0.047MF	10%	100V	
C1112	1-106-196-00	MYLAR	0.01MF	10%	100V	
C1113	1-123-382-00	ELECT	3.3MF	20%	50V	
C1114	1-123-380-00	ELECT	1MF	20%	50V	
C1115	1-130-275-00	FILM	0.0012MF	5%	100V	
C1116	1-123-380-00	ELECT	1MF	20%	50V	
C1117	1-123-380-00	ELECT	1MF	20%	50V	
C1118	1-123-321-00	ELECT	220MF	20%	16V	
C1119	1-106-172-00	MYLAR	0.001MF	10%	100V	
C1120	1-106-188-00	MYLAR	0.0047MF	10%	100V	
C1121	1-102-112-00	CERAMIC	330PF	10%	50V	
C1122	1-123-369-00	ELECT	4.7MF	20%	25V	
C1123	1-123-380-00	ELECT	1MF	20%	50V	
C1124	1-123-380-00	ELECT	1MF	20%	50V	
C1125	1-123-332-00	ELECT	47MF	20%	16V	
C1126	1-123-380-00	ELECT	1MF	20%	50V	
C1127	1-123-356-00	ELECT	10MF	20%	16V	
C1128	1-106-176-00	MYLAR	0.0015MF	10%	100V	
C1129	1-106-176-00	MYLAR	0.0015MF	10%	100V	
C1130	1-123-380-00	ELECT	1MF	20%	50V	
C1131	1-131-345-00	TANTALUM	0.47MF	10%	35V	
C1132	1-123-356-00	ELECT	10MF	20%	16V	
C1133	1-123-318-00	ELECT	33MF	20%	16V	
C1134	1-130-301-00	FILM	0.015MF	5%	100V	
C1135	1-123-323-00	ELECT	470MF	20%	16V	
C1136	1-123-332-00	ELECT	47MF	20%	16V	
C1137	1-123-332-00	ELECT	47MF	20%	16V	
C1148	1-123-308-00	ELECT	220MF	20%	10V	
C1149	1-123-381-00	ELECT	2.2MF	20%	50V	
C1150	1-123-381-00	ELECT	2.2MF	20%	50V	
C1151	1-123-369-00	ELECT	4.7MF	20%	25V	
C1152	1-123-369-00	ELECT	4.7MF	20%	25V	
C1153	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1154	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1155	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1156	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1157	1-123-323-00	ELECT	470MF	20%	16V	
C1160	1-106-212-00	MYLAR	0.047MF	10%	100V	
C1161	1-106-172-00	MYLAR	0.001MF	10%	100V	
C1162	1-106-172-00	MYLAR	0.001MF	10%	100V	
C1163	1-106-212-00	MYLAR	0.047MF	10%	100V	
C1164	1-123-356-00	ELECT	10MF	20%	16V	
C1165	1-123-380-00	ELECT	1MF	20%	50V	
C1166	1-102-824-00	CERAMIC	470PF	5%	50V	
C1167	1-123-380-00	ELECT	1MF	20%	50V	
C1168	1-102-824-00	CERAMIC	470PF	5%	50V	
C1169	1-123-356-00	ELECT	10MF	20%	16V	
C1170	1-123-360-00	ELECT	100MF	20%	50V	
C1171	1-124-607-11	ELECT	2200MF	20%	50V	
C1172	1-123-346-00	ELECT	220MF	20%	35V	
C1174	1-106-208-00	MYLAR	0.033MF	10%	100V	
C1175	1-123-364-00	ELECT	1000MF	20%	50V	
C1176	1-123-359-00	ELECT	47MF	20%	35V	
C1177	1-106-212-00	MYLAR	0.047MF	10%	100V	
C1178	1-106-212-00	MYLAR	0.047MF	10%	100V	
C1179	1-123-359-00	ELECT	47MF	20%	35V	
C1180	1-123-364-00	ELECT	1000MF	20%	50V	
C1181	1-106-208-00	MYLAR	0.033MF	10%	100V	
C1183	1-123-346-00	ELECT	220MF	20%	35V	
C1184	1-123-356-00	ELECT	10MF	20%	16V	
C1185	1-123-380-00	ELECT	1MF	20%	50V	
C1186	1-123-380-00	ELECT	1MF	20%	50V	
C1187	1-123-380-00	ELECT	1MF	20%	50V	
C1188	1-123-380-00	ELECT	1MF	20%	50V	
C1189	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1190	1-123-333-00	ELECT	100MF	20%	16V	

Ref.No.	Part No.	Description				Remark
C1200	1-130-281-00	FILM	0.0022MF	5%	100V	
C1201	1-131-343-00	TANTALUM	0.22MF	10%	35V	
C1202	1-131-343-00	TANTALUM	0.22MF	10%	35V	
C1203	1-130-281-00	FILM	0.0022MF	5%	100V	
C1204	1-131-345-00	TANTALUM	0.47MF	10%	35V	
C1205	1-130-309-00	FILM	0.033MF	5%	100V	
C1206	1-130-285-00	FILM	0.0033MF	5%	100V	
C1207	1-130-285-00	FILM	0.0033MF	5%	100V	
C1208	1-130-285-00	FILM	0.0033MF	5%	100V	
C1209	1-130-285-00	FILM	0.0033MF	5%	100V	
C1210	1-131-371-00	TANTALUM	10MF	10%	16V	
C1211	1-123-332-00	ELECT	47MF	20%	16V	
C1212	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C1213	1-130-297-00	FILM	0.01MF	5%	100V	
C1214	1-123-586-00	ELECT	0.1MF	20%	50V	
C1215	1-123-380-00	ELECT	1MF	20%	50V	
C1216	1-130-281-00	FILM	0.0022MF	5%	100V	
C1217	1-123-380-00	ELECT	1MF	20%	50V	
C1218	1-123-380-00	ELECT	1MF	20%	50V	
C1219	1-123-382-00	ELECT	3.3MF	20%	50V	
C1220	1-123-356-00	ELECT	10MF	20%	16V	
C1221	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C1222	1-123-380-00	ELECT	1MF	20%	50V	
C1223	1-131-368-00	TANTALUM	3.3MF	10%	16V	
C1224	1-123-369-00	ELECT	4.7MF	20%	50V	
C1225	1-123-356-00	ELECT	10MF	20%	16V	

DIODE

D1101	8-719-911-19	DIODE 1SS119
D1102	8-719-911-19	DIODE 1SS119
D1103	8-719-911-19	DIODE 1SS119
D1104	8-719-911-19	DIODE 1SS119
D1105	8-719-102-74	DIODE RD6.2E-N2
D1106	8-719-102-74	DIODE RD6.2E-N2

IC

IC1101	8-759-800-18	IC LA3375
IC1102	8-759-271-33	IC TA7133P
IC1103	8-759-145-58	IC UPC4558C
IC1104	8-759-140-66	IC UPD4066BC
IC1105	8-759-400-88	IC AN6291
IC1106	8-759-140-66	IC UPD4066BC
IC1107	8-759-907-16	IC CX10026
IC1108	8-749-943-62	IC STK-4362
IC1109	8-759-145-58	IC UPC4558C

TRANSISTOR

Q1101	8-729-245-83	TRANSISTOR 2SC2458
Q1102	8-729-245-83	TRANSISTOR 2SC2458
Q1103	8-729-245-83	TRANSISTOR 2SC2458
Q1104	8-729-204-83	TRANSISTOR 2SA1048GR
Q1105	8-729-245-83	TRANSISTOR 2SC2458
Q1106	8-729-245-83	TRANSISTOR 2SC2458
Q1107	8-729-245-83	TRANSISTOR 2SC2458
Q1108	8-729-204-83	TRANSISTOR 2SA1048GR
Q1109	8-729-245-83	TRANSISTOR 2SC2458
Q1110	8-729-245-83	TRANSISTOR 2SC2458
Q1111	8-729-204-83	TRANSISTOR 2SA1048GR
Q1112	8-729-204-83	TRANSISTOR 2SA1048GR
Q1113	8-729-245-83	TRANSISTOR 2SC2458
Q1114	8-729-245-83	TRANSISTOR 2SC2458
Q1115	8-729-245-83	TRANSISTOR 2SC2458
Q1116	8-729-245-83	TRANSISTOR 2SC2458
Q1117	8-729-245-83	TRANSISTOR 2SC2458
Q1118	8-729-245-83	TRANSISTOR 2SC2458
Q1119	8-729-245-83	TRANSISTOR 2SC2458
Q1120	8-729-245-83	TRANSISTOR 2SC2458
Q1121	8-729-378-84	TRANSISTOR 2SD788
Q1122	8-729-245-83	TRANSISTOR 2SC2458
Q1123	8-729-245-83	TRANSISTOR 2SC2458
Q1124	8-729-245-83	TRANSISTOR 2SC2458

RESISTOR

Ref.No.	Part No.					Remark
R1101	1-247-831-00	CARBON	1K	5%	1/6W	
R1102	1-247-831-00	CARBON	1K	5%	1/6W	
R1103	1-247-867-00	CARBON	33K	5%	1/6W	
R1104	1-247-819-00	CARBON	330	5%	1/6W	
R1105	1-247-837-00	CARBON	1.8K	5%	1/6W	
R1106	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1107	1-247-867-00	CARBON	33K	5%	1/6W	
R1108	1-247-851-00	CARBON	6.8K	5%	1/6W	
R1109	1-247-859-00	CARBON	15K	5%	1/6W	
R1110	1-247-859-00	CARBON	15K	5%	1/6W	
R1111	1-247-849-00	CARBON	5.6K	5%	1/6W	
R1112	1-247-859-00	CARBON	15K	5%	1/6W	
R1113	1-247-839-00	CARBON	2.2K	5%	1/6W	
R1114	1-247-881-00	CARBON	120K	5%	1/6W	
R1115	1-247-863-00	CARBON	22K	5%	1/6W	
R1116	1-247-871-00	CARBON	47K	5%	1/6W	
R1117	1-247-853-00	CARBON	8.2K	5%	1/6W	
R1118	1-247-866-00	CARBON	30K	5%	1/6W	
R1119	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1120	1-247-891-00	CARBON	330K	5%	1/6W	
R1121	1-247-879-00	CARBON	100K	5%	1/6W	
R1122	1-247-852-00	CARBON	7.5K	5%	1/6W	
R1123	1-247-831-00	CARBON	1K	5%	1/6W	
R1124	1-247-857-00	CARBON	12K	5%	1/6W	
R1125	1-247-855-00	CARBON	10K	5%	1/6W	
R1126	1-247-855-00	CARBON	10K	5%	1/6W	
R1127	1-247-879-00	CARBON	100K	5%	1/6W	
R1128	1-215-433-00	METAL	3.3K	1%	1/6W	
R1129	1-215-433-00	METAL	3.3K	1%	1/6W	
R1130	1-247-855-00	CARBON	10K	5%	1/6W	
R1132	1-247-827-00	CARBON	680	5%	1/6W	
R1133	1-247-855-00	CARBON	10K	5%	1/6W	

X

Ref.No.	Part No.	Description				Remark
R1134	1-247-855-00	CARBON	10K	5%	1/6W	
R1135	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1136	1-247-803-00	CARBON	68	5%	1/6W	
R1137	1-247-835-00	CARBON	1.5K	5%	1/6W	
R1138	1-247-819-00	CARBON	330	5%	1/6W	
R1139	1-247-861-00	CARBON	18K	5%	1/6W	
R1140	1-247-851-00	CARBON	6.8K	5%	1/6W	
R1141	1-247-871-00	CARBON	47K	5%	1/6W	
R1142	1-247-871-00	CARBON	47K	5%	1/6W	
R1143	1-247-871-00	CARBON	47K	5%	1/6W	
R1144	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1145	1-247-143-00	CARBON	3.3K	5%	1/4W	
R1146	1-247-851-00	CARBON	6.8K	5%	1/6W	
R1147	1-247-861-00	CARBON	18K	5%	1/6W	
R1148	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1149	1-247-863-00	CARBON	22K	5%	1/6W	
R1150	1-215-486-00	METAL	510K	1%	1/6W	
R1151	1-214-785-00	METAL	220K	1%	1/4W	
R1152	1-215-469-00	METAL	100K	1%	1/6W	
R1153	1-214-777-00	METAL	100K	1%	1/4W	
R1154	1-214-785-00	METAL	220K	1%	1/4W	
R1155	1-215-493-00	METAL	1M	1%	1/6W	
R1156	1-215-493-00	METAL	1M	1%	1/6W	
R1157	1-246-529-00	CARBON	220K	5%	1/4W	
R1158	1-247-879-00	CARBON	100K	5%	1/6W	
R1159	1-247-886-00	CARBON	200K	5%	1/6W	
R1160	1-247-115-00	CARBON	220	5%	1/4W	
R1161	1-247-863-00	CARBON	22K	5%	1/6W	
R1162	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1163	1-247-851-00	CARBON	6.8K	5%	1/6W	
R1164	1-247-861-00	CARBON	18K	5%	1/6W	
R1165	1-247-848-00	CARBON	5.1K	5%	1/6W	
R1166	1-247-835-00	CARBON	1.5K	5%	1/6W	
R1167	1-247-833-00	CARBON	1.2K	5%	1/6W	
R1168	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1170	1-247-849-00	CARBON	5.6K	5%	1/6W	
R1171 ⚠	1-247-026-11	CARBON	5.6	5%	1/8W	F
R1172	1-247-823-00	CARBON	470	5%	1/6W	
R1173	1-247-841-00	CARBON	2.7K	5%	1/6W	
R1174	1-247-829-00	CARBON	820	5%	1/6W	
R1175	1-249-421-11	CARBON	2.2K	5%	1/6W	
R1176	1-247-815-00	CARBON	220	5%	1/6W	
R1177	1-247-863-00	CARBON	22K	5%	1/6W	
R1180	1-247-855-00	CARBON	10K	5%	1/6W	
R1181	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1182	1-247-838-00	CARBON	2K	5%	1/6W	
R1183	1-247-838-00	CARBON	2K	5%	1/6W	
R1184	1-247-829-00	CARBON	820	5%	1/6W	
R1185	1-247-829-00	CARBON	820	5%	1/6W	
R1186	1-247-838-00	CARBON	2K	5%	1/6W	
R1187	1-247-879-00	CARBON	100K	5%	1/6W	
R1188	1-247-855-00	CARBON	10K	5%	1/6W	
R1189	1-247-855-00	CARBON	10K	5%	1/6W	
R1190	1-247-811-00	CARBON	150	5%	1/6W	
R1191	1-247-823-00	CARBON	470	5%	1/6W	
R1192	1-247-855-00	CARBON	10K	5%	1/6W	
R1193	1-247-855-00	CARBON	10K	5%	1/6W	
R1194	1-247-855-00	CARBON	10K	5%	1/6W	
R1195	1-247-879-00	CARBON	100K	5%	1/6W	
R1196	1-247-879-00	CARBON	100K	5%	1/6W	
R1197	1-247-855-00	CARBON	10K	5%	1/6W	
R1199	1-247-879-00	CARBON	100K	5%	1/6W	
R1200	1-247-879-00	CARBON	100K	5%	1/6W	
R1203	1-247-831-00	CARBON	1K	5%	1/6W	
R1204	1-247-831-00	CARBON	1K	5%	1/6W	
R1205	1-247-831-00	CARBON	1K	5%	1/6W	
R1206	1-247-831-00	CARBON	1K	5%	1/6W	
R1207	1-247-831-00	CARBON	1K	5%	1/6W	
R1208	1-247-865-00	CARBON	27K	5%	1/6W	
R1210	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1211	1-247-879-00	CARBON	100K	5%	1/6W	
R1212	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1213	1-247-831-00	CARBON	1K	5%	1/6W	
R1214	1-247-879-00	CARBON	100K	5%	1/6W	
R1215	1-247-881-00	CARBON	120K	5%	1/6W	
R1216	1-247-893-00	CARBON	390K	5%	1/6W	
R1217 ⚠	1-211-427-11	CARBON	100	5%	1/8W	F
R1218	1-247-825-00	CARBON	560	5%	1/6W	
R1220	1-247-859-00	CARBON	15K	5%	1/6W	
R1221	1-247-861-00	CARBON	18K	5%	1/6W	
R1222 ⚠	1-211-401-11	CARBON	4.7	5%	1/8W	F
R1223	1-211-401-00	CARBON	4.7	5%	1/8W	F
R1224	1-247-831-00	CARBON	1K	5%	1/6W	
R1225	1-247-161-00	CARBON	18K	5%	1/4W	
R1226	1-247-859-00	CARBON	15K	5%	1/6W	
R1227	1-247-831-00	CARBON	1K	5%	1/6W	
R1229	1-247-825-00	CARBON	560	5%	1/6W	
R1230	1-247-879-00	CARBON	100K	5%	1/6W	
R1231	1-247-831-00	CARBON	1K	5%	1/6W	
R1232	1-247-831-00	CARBON	1K	5%	1/6W	
R1233	1-247-831-00	CARBON	1K	5%	1/6W	
R1234	1-247-831-00	CARBON	1K	5%	1/6W	
R1237	1-247-879-00	CARBON	100K	5%	1/6W	
R1241	1-247-855-00	CARBON	10K	5%	1/6W	
R1243	1-247-862-00	CARBON	20K	5%	1/6W	
R1245	1-247-867-00	CARBON	33K	5%	1/6W	
R1246	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1247	1-247-885-00	CARBON	180K	5%	1/6W	
R1248	1-247-885-00	CARBON	180K	5%	1/6W	
R1249	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1250	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1251	1-247-863-00	CARBON	22K	5%	1/6W	
R1252	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1253	1-247-865-00	CARBON	27K	5%	1/6W	
R1254	1-247-847-00	CARBON	4.7K	5%	1/6W	
R1255	1-247-847-00	CARBON	4.7K	5%	1/6W	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description				Remark
R1256	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1257	1-247-811-00	CARBON	150	5%	1/6W	
R1258	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1259	1-247-869-00	CARBON	39K	5%	1/6W	
R1260	1-247-893-00	CARBON	390K	5%	1/6W	
R1261	1-247-885-00	CARBON	180K	5%	1/6W	
R1262	1-247-844-00	CARBON	3.6K	5%	1/6W	
R1263	1-247-893-00	CARBON	390K	5%	1/6W	
R1288	1-247-848-00	CARBON	5.1K	5%	1/6W	
R1289	1-247-885-00	CARBON	180K	5%	1/6W	
R1290	1-247-811-00	CARBON	150	5%	1/6W	
R1291	1-247-843-00	CARBON	3.3K	5%	1/6W	
R1292	1-247-831-00	CARBON	1K	5%	1/6W	
R1293	1-247-844-00	CARBON	3.6K	5%	1/6W	
R1294	1-247-887-00	CARBON	220K	5%	1/6W	
R1295	1-215-421-00	METAL	1K	1%	1/6W	
		VARIABLE RESISTOR				
RV1101	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K				
RV1102	1-228-723-00	RES, ADJ, CERAMIC CARBON 4.7K				
RV1103	1-228-720-00	RES, ADJ, CERAMIC CARBON 1K				
RV1104	1-228-722-00	RES, ADJ, CERAMIC CARBON 3.3K				
RV1106	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K				
RV1107	1-228-721-00	RES, ADJ, CERAMIC CARBON 2.2K				
RV1108	1-228-721-00	RES, ADJ, CERAMIC CARBON 2.2K				
RV1109	1-228-725-00	RES, ADJ, CERAMIC CARBON 22K				
RV1110	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K				
		TRANSFORMER				
T1101	1-235-386-11	FILTER, BAND PASS				
T1102	1-235-387-11	FILTER, BAND PASS				
T1103	1-235-400-11	FILTER, LOW PASS (L.P.F)				
T1104	1-231-726-00	FILTER, LOWPASS				
T1105	1-231-726-00	FILTER, LOWPASS				
		CONNECTOR				
X1	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P				
X2	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P				
X3	*1-508-765-00	3P PLUG (M)				
X4	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
X5	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P				
X6	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P				
X7	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
**********						
*1-614-651-11	XA BOARD					
	********					
		CAPACITOR				
C1701	1-102-116-00	CERAMIC	680PF	10%	50V	
C1702	1-102-117-00	CERAMIC	820PF	10%	50V	
C1703	1-123-356-00	ELECT	10MF	20%	16V	
C1704	1-123-356-00	ELECT	10MF	20%	16V	

Ref.No.	Part No.	Description				Remark
		DIODE				
D1701	8-719-911-19	DIODE 1SS119				
		COIL				
L1701	1-408-242-00	MICRO INDUCTOR 10MMH				
		TRANSISTOR				
Q1701	8-729-245-83	TRANSISTOR 2SC2458				
Q1702	8-729-204-83	TRANSISTOR 2SA1048GR				
		RESISTOR				
R1701	1-249-421-11	CARBON	2.2K	5%	1/6W	
R1702	1-247-855-00	CARBON	10K	5%	1/6W	
R1703	1-247-847-00	CARBON	4.7K	5%	1/6W	
		CONNECTOR				
XA1	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
**********						
*1-613-413-11	Z BOARD					
	*******					
		JACK				
J001	1-507-806-00	JACK				
J002	1-507-940-21	JACK, AV				
J003	1-507-940-21	JACK, AV				
		RESISTOR				
R001	1-244-851-51	CARBON	120	5%	1/2W	
R002	1-244-851-51	CARBON	120	5%	1/2W	
		CONNECTOR				
Z1	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P				
Z2	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P				
Z3	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
Z4	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P				
**********						
		MISCELLANEOUS				
		**********				
⚠	1-230-212-11	RESISTOR ASSY, HIGH-VOLTAGE				
⚠	1-417-125-11	SELECTOR, ANTENNA				
⚠	1-451-255-11	DEFLECTION YOKE (SY-164)				
	1-452-032-00	MAGNET, DISK; 10MM ø				
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ø				
	1-452-146-21	MAGNET, BMC				
⚠	1-452-315-21	CRT NECK ASSY (NA303)				
	*1-557-056-00	CABLE, P-P				
⚠	1-557-761-11	CORD, POWER				
L906 ⚠	1-426-059-31	COIL, DEGAUSSING				

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description	Remark
L907	⚠ 1-426-059-31	COIL, DEGAUSSING	
T901	⚠ 1-439-339-12	TRANSFORMER ASSY, FLYBACK	
V901	⚠ 8-736-651-05	CRT (A64JKJ10X)	

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ACCESSORIES AND PACKING MATERIALS
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Part No.	Description	Remark
A-1470-681-A	COMMANDER ASSY(RM-724)	
1-513-379-00	CONVERTER (EAC-25)	
4-337-844-00	BAG, PROTECTION	
4-374-194-01	CUSHION (UPPER) (ASSY)	
4-374-195-01	CUSHION (LOWER) (ASSY)	
4-374-402-01	SHEET, CORRUGATED FIBERBOARD	
4-482-023-21	MANUAL, INSTRUCTION	
4-491-213-22	INSTRUCTION	
4-374-321-01	INDIVIDUAL CARTON (FOR BEIGE)	
4-374-324-01	INDIVIDUAL CARTON (FOR PLUM)	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SONY
TRINITRON® COLOR TV
KV-25XBR/RM-724

US Model

Chassis No. SCC-595B-A

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

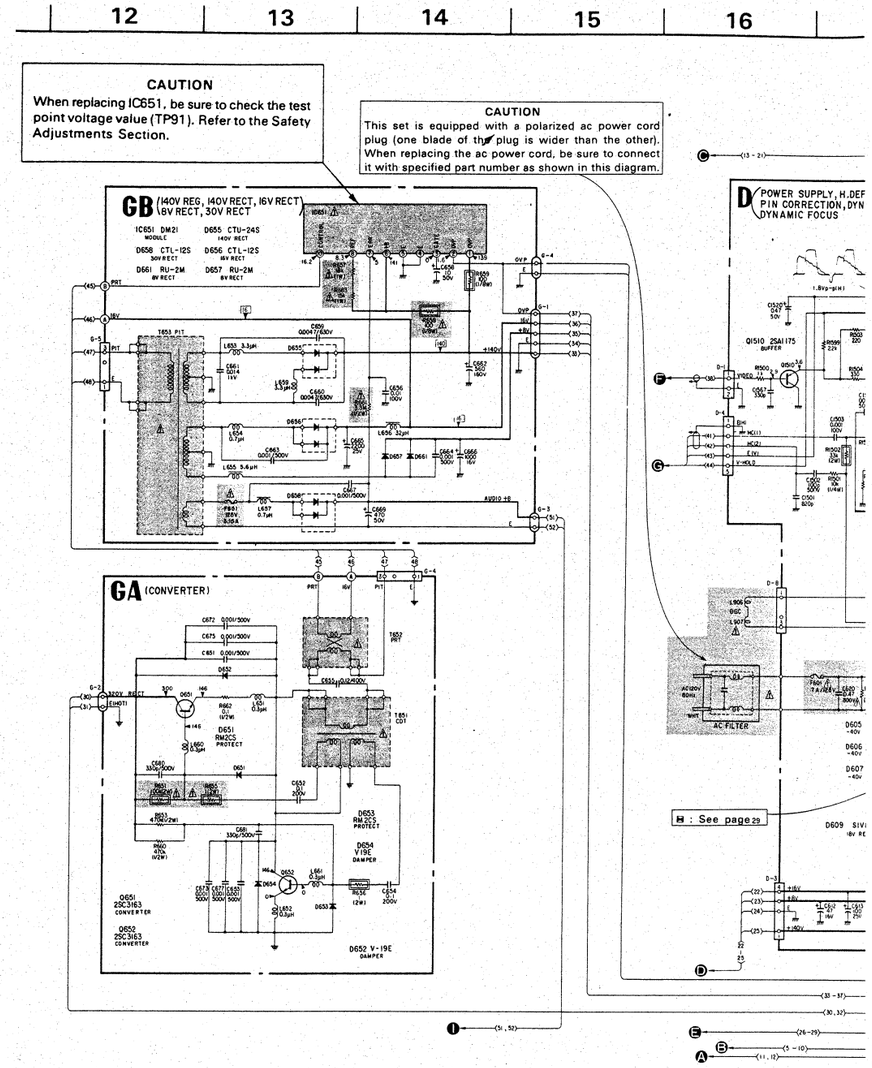
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

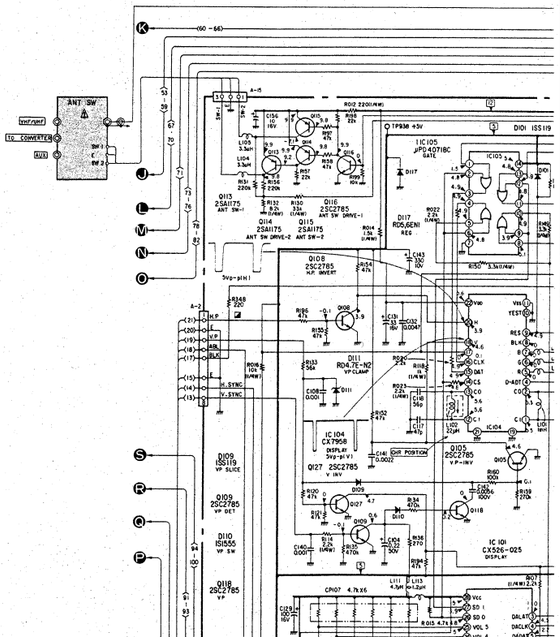
Note:

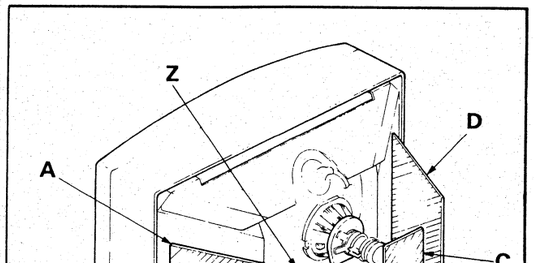
- All Capacitors are in μF unless otherwise noted, pF: μμF 50 WV or less are not indicated except for electrolytics.
- All resistors are in ohms. 1/6W unless otherwise noted. kΩ = 1000Ω, MΩ = 1000kΩ
- Standard for the M Board is 1/4W:
- ▭ : nonflamable resistor.
- △ : internal component.
- ▭ : panel designation.
- All variable and adjustable resistors have characteristics curve B, unless otherwise noted.
- The components indentified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪ mark the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⧓ and repeat the adjustment until the specified value is achieved.
  (Refer to R1531, R1534, R1535, R1556, R1578 adjustment on page 29.)
  When replacing the part in below table, be sure to perform the related adjustment.

Part replaced (◪)	Adjustment (⧓)
D1502, D1507, IC1501 Q1502, Q1503, R427 R431, R437, R438 R1512, R1519, R1529 R1530, R1531, R1532 R1533, R1543, R1544 R1545	R1531
D1508, D1509, IC301 IC401, Q1506, R339 R340, R348, R436 R1534, R1535, R1537 R1538, R1539, R1561 R1576	R1534, R1535
C1663, C1664, C1667 C1675, IC1502, L1514 R1556, R1570, R1635 R1636, R1638, RV1511 FBT, DY	R1556
C1519, C1663, C1664 C1667, C1675, IC1501 L1514, R1522, R1578 R1579, R1580, R1581 R1582, R1583, RV1503 FBT, DY	R1578

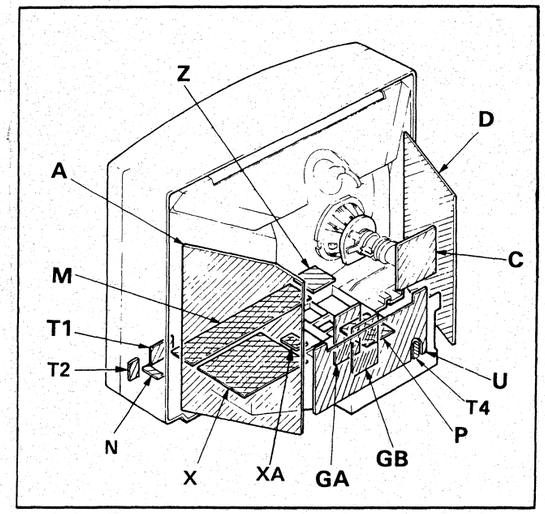
- All voltages are in V.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- ——— : B + bus.
- - - - : B − bus.
- Voltage variations may be noted due to normal production tolerances.
- ▭ : adjustment for repair.

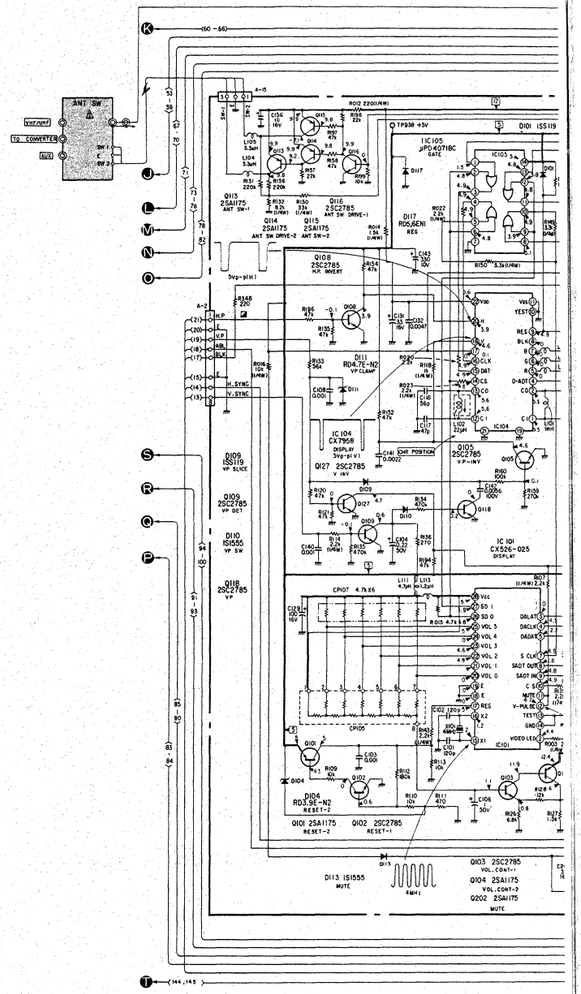


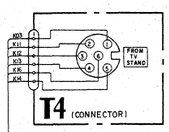


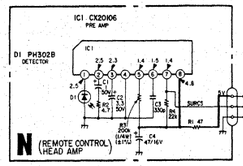


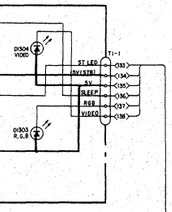
R1576	
C1663, C1664, C1667 C1675, IC1502, L1514 R1556, R1570, R1635 R1636, R1638, RV1511 FBT, DY	R1556
C1519, C1663, C1664 C1667, C1675, IC1501 L1514, R1522, R1578 R1579, R1580, R1581 R1582, R1583, RV1503 FBT, DY	R1578

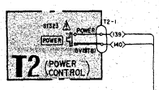






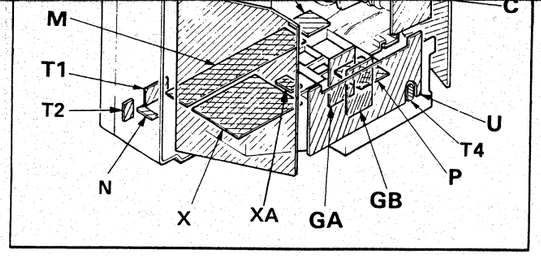


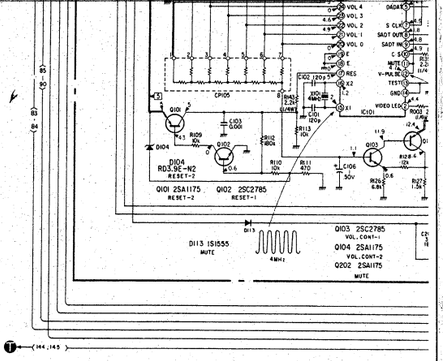


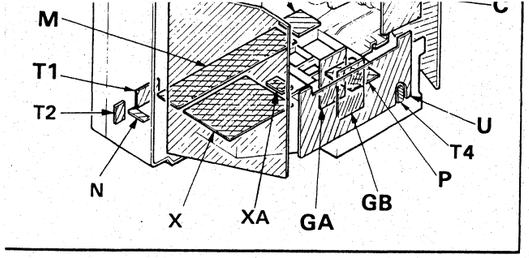


SCHEMATIC DIAGRAM

SCHEMATIC DIAGRAM





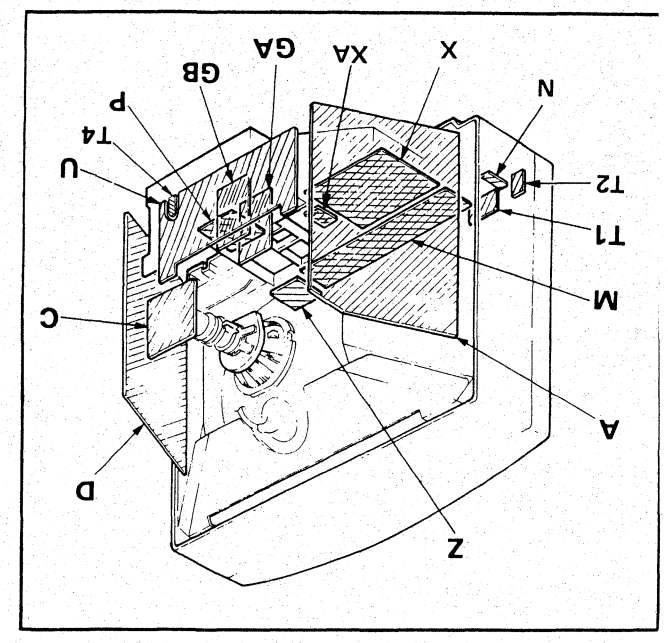


W, MTV SW 3, AUDIO-1, 3 A, V-HOLD) • Voltage on U board are taken with a digital R, G, B signal received, and waveforms are taken with both a color-bar signal input and a digital R, G, B signal input.

Z (PHONE JACK TV OUT VIDEO 2 IN)

X (MTS DECODER \AUDIO CONTROL \AUDIO OUT)

XA (SAP MUTE)

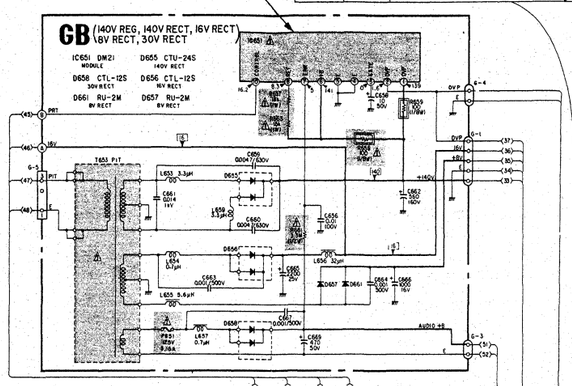

N
X
XA
GA
GB
P
T4
U
T2
T1
M
C
A
D
Z

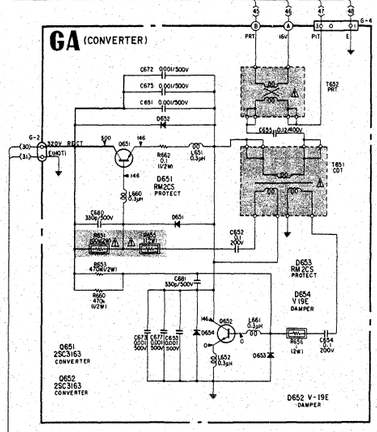
ages are in V.
es are dc with respect to ground unless otherwise

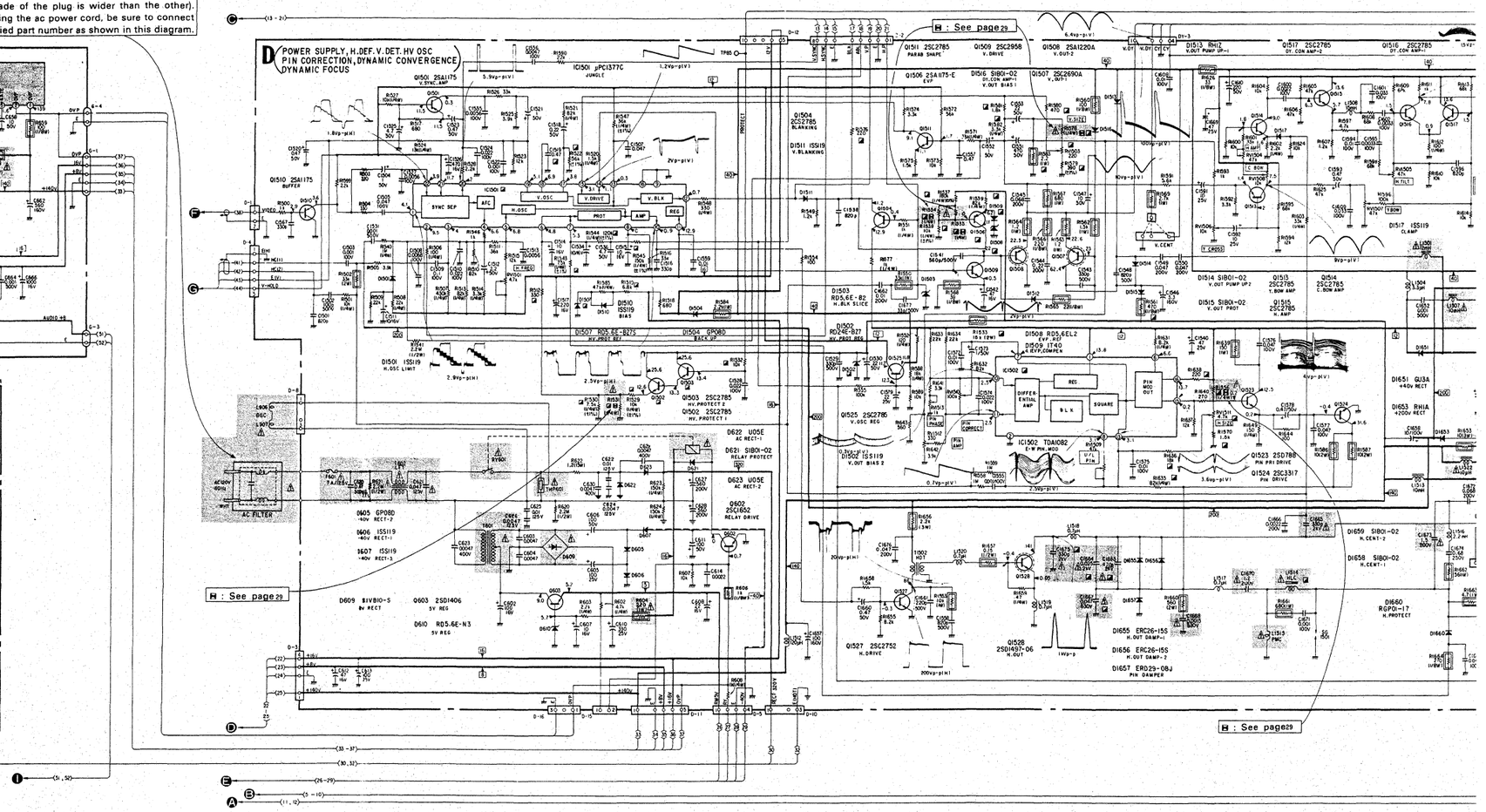
gs are taken with a 10MΩ digital multimeter.
gs are taken with a color-bar signal input.
: B + bus.
: B − bus.
e variations may be noted due to normal produc-
lerances.
: adjustment for repair.

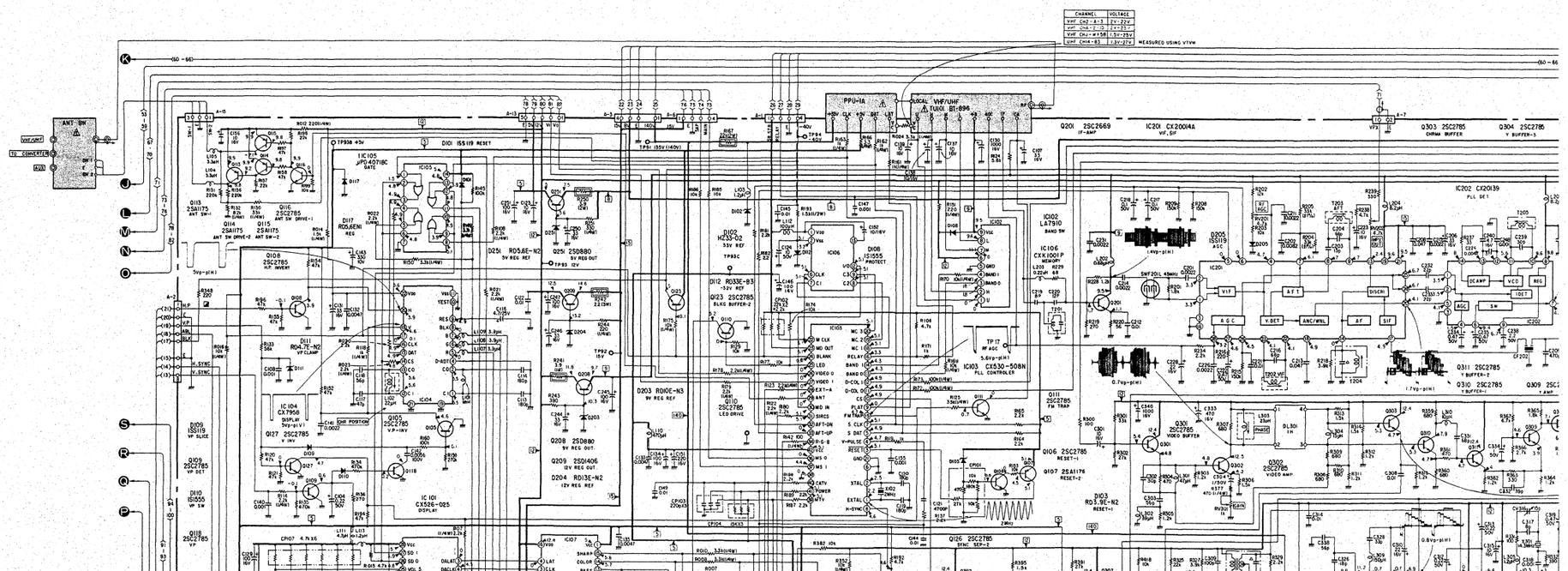
CAUTION
When replacing IC651, be sure to check the test point voltage value (TP91). Refer to the Safety Adjustments Section.

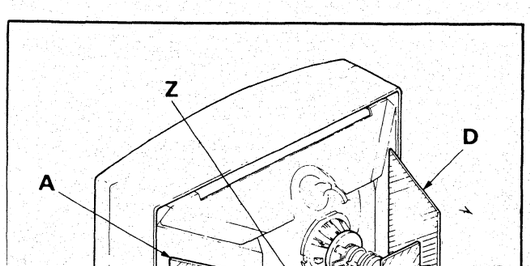
CAUTION
This set is equipped with a polarized ac power cord plug (one blade of the plug is wider than the other). When replacing the ac power cord, be sure to connect it with specified part number as shown in this diagram.

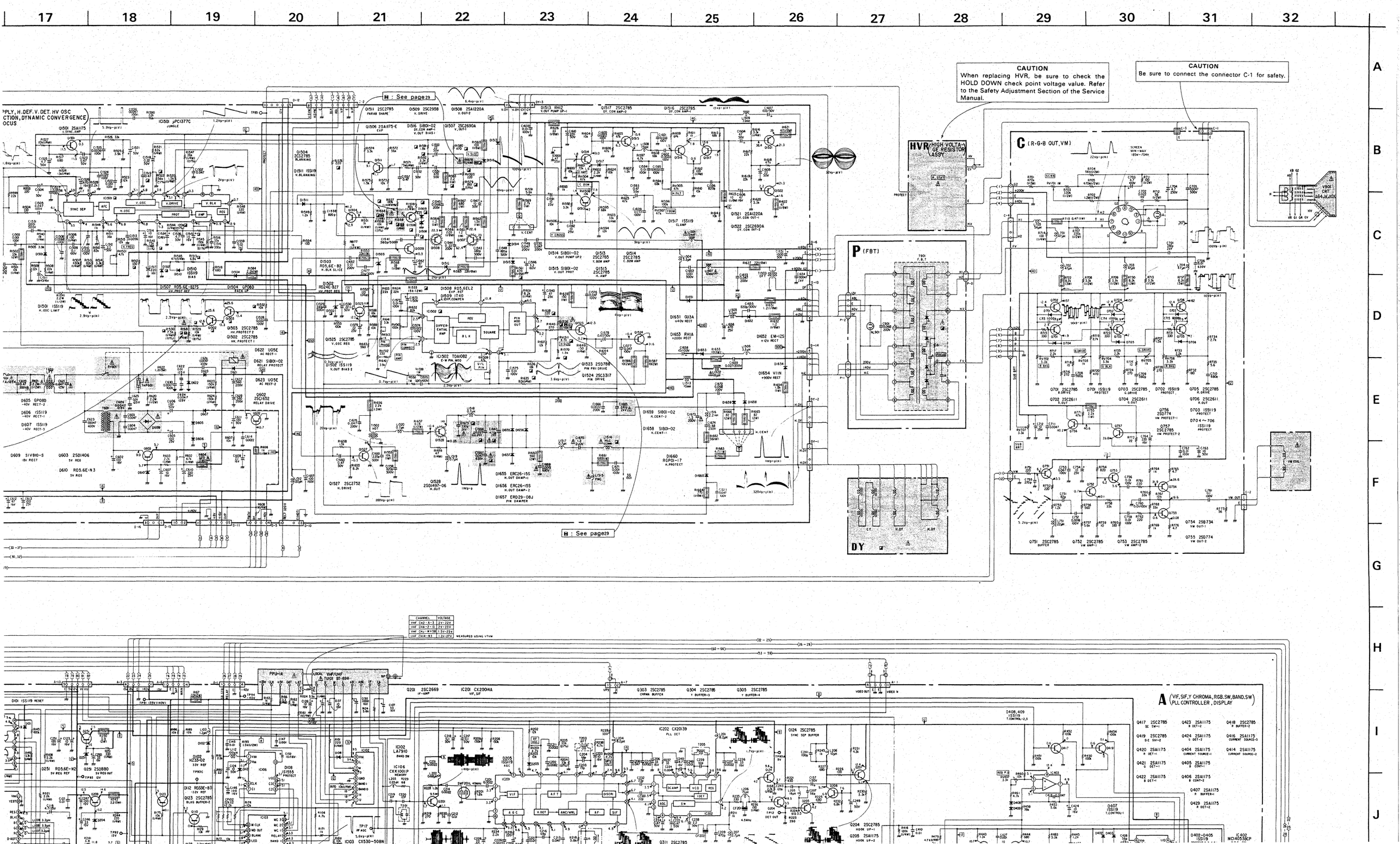




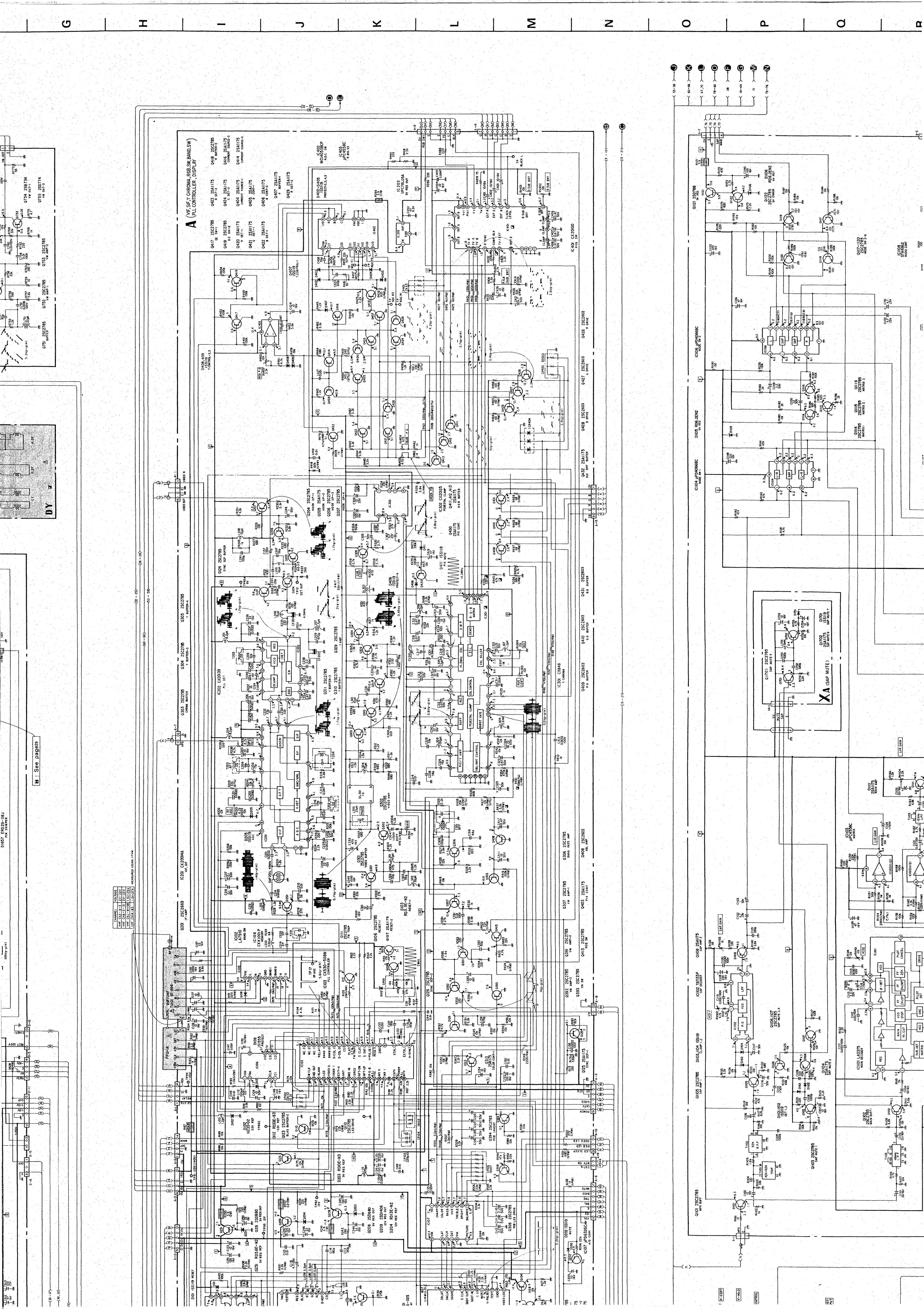




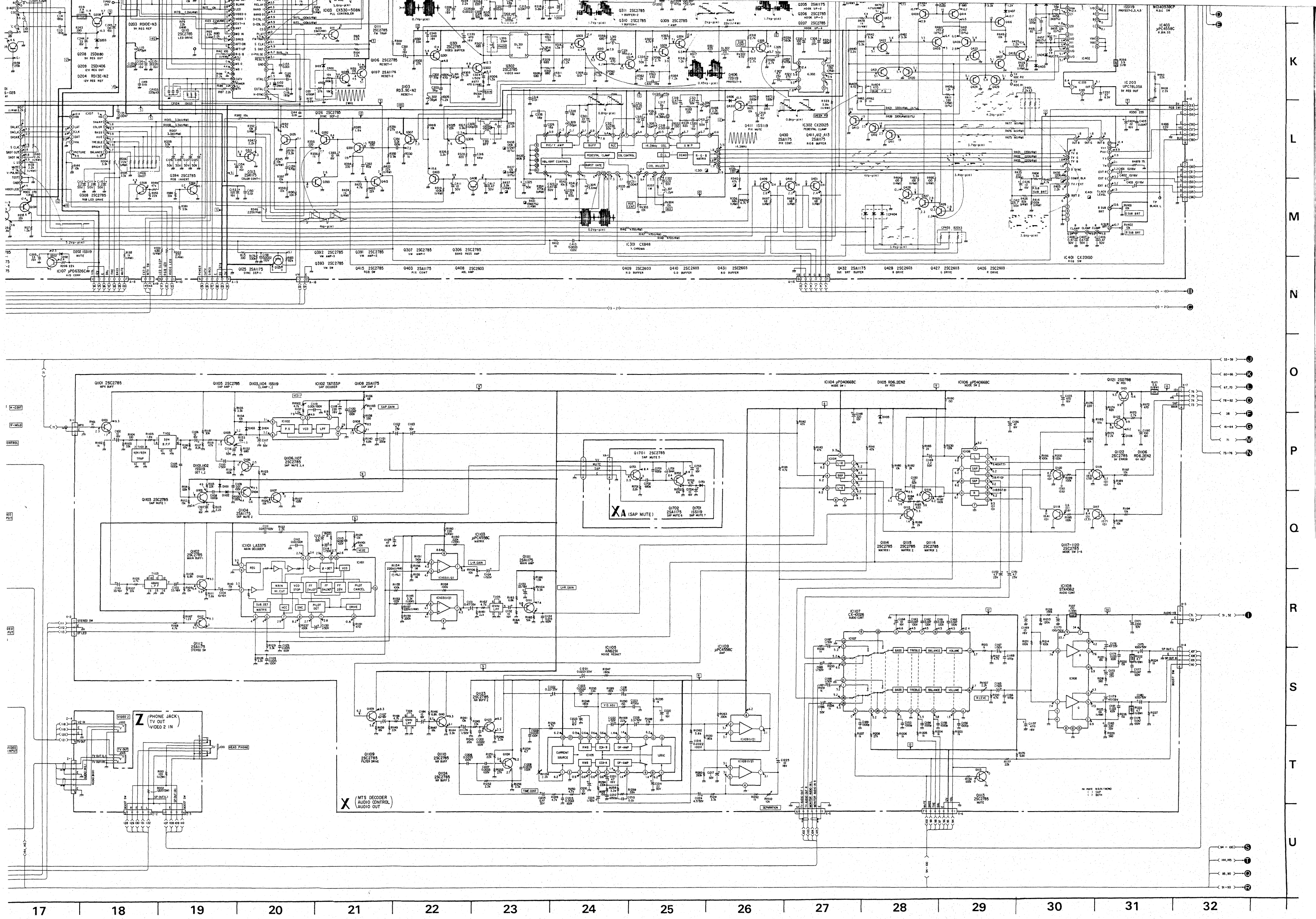




CAUTION
When replacing HVR, be sure to check the HOLD DOWN check point voltage value. Refer to the Safety Adjustment Section of the Service Manual.
CAUTION
Be sure to connect the connector C-1 for safety.
HVR (HIGH VOLTAGE RESISTOR ASSY)
C (R-G-B OUT, VM)
P (FBT)
DY
A (VIF, SIF, Y CHROMA, RGB, SW, BAND, SW) PLL CONTROLLER, DISPLAY



G
H
I
J
K
L
M
N
O
P
Q
A (VIF,SIF,Y CHROMA,RGB SW,BAND SW) PLL CONTROLLER, DISPLAY
XA (SAP MUTE)
H : See page29
DY



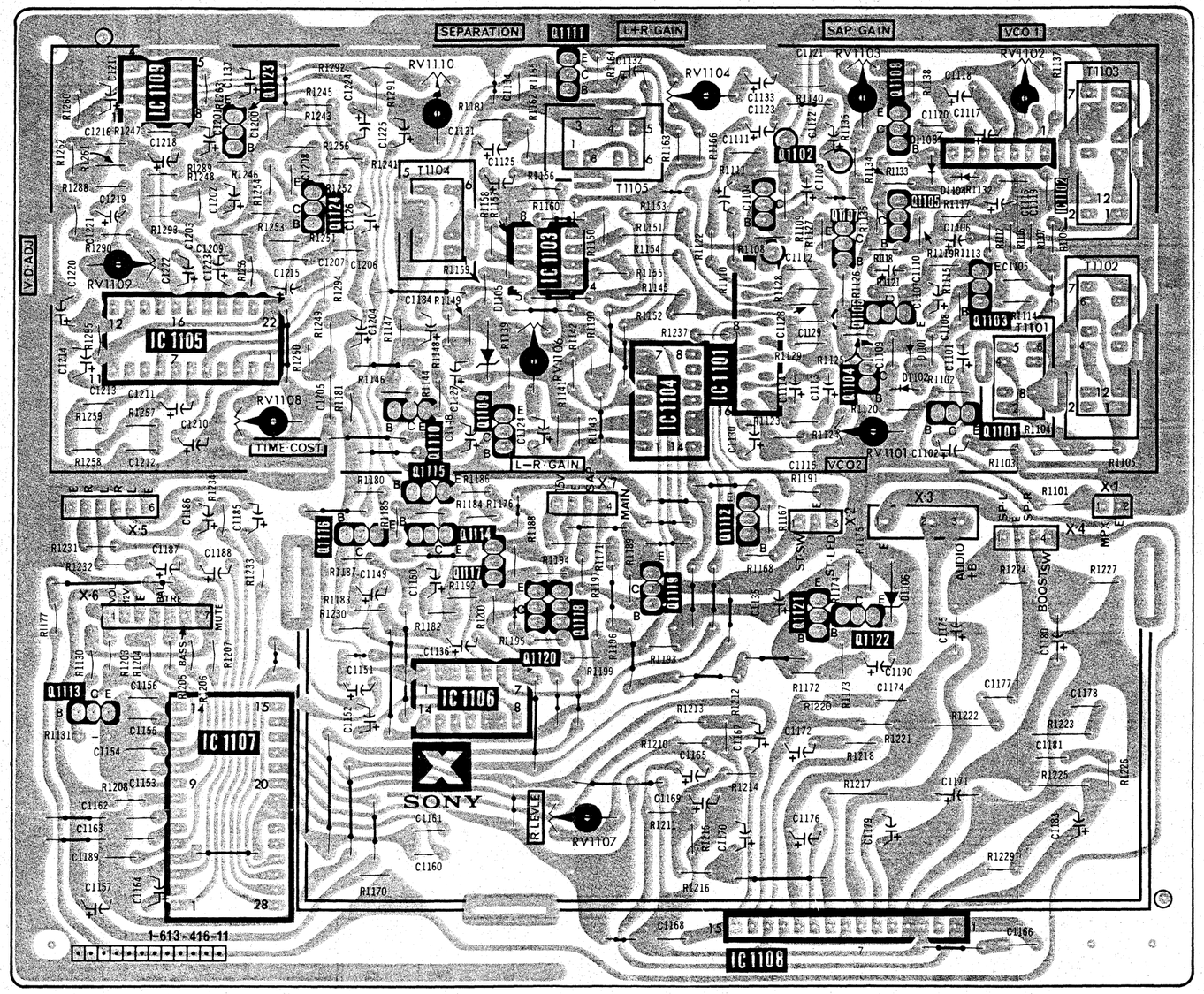
K L M N O P Q R S T U

17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

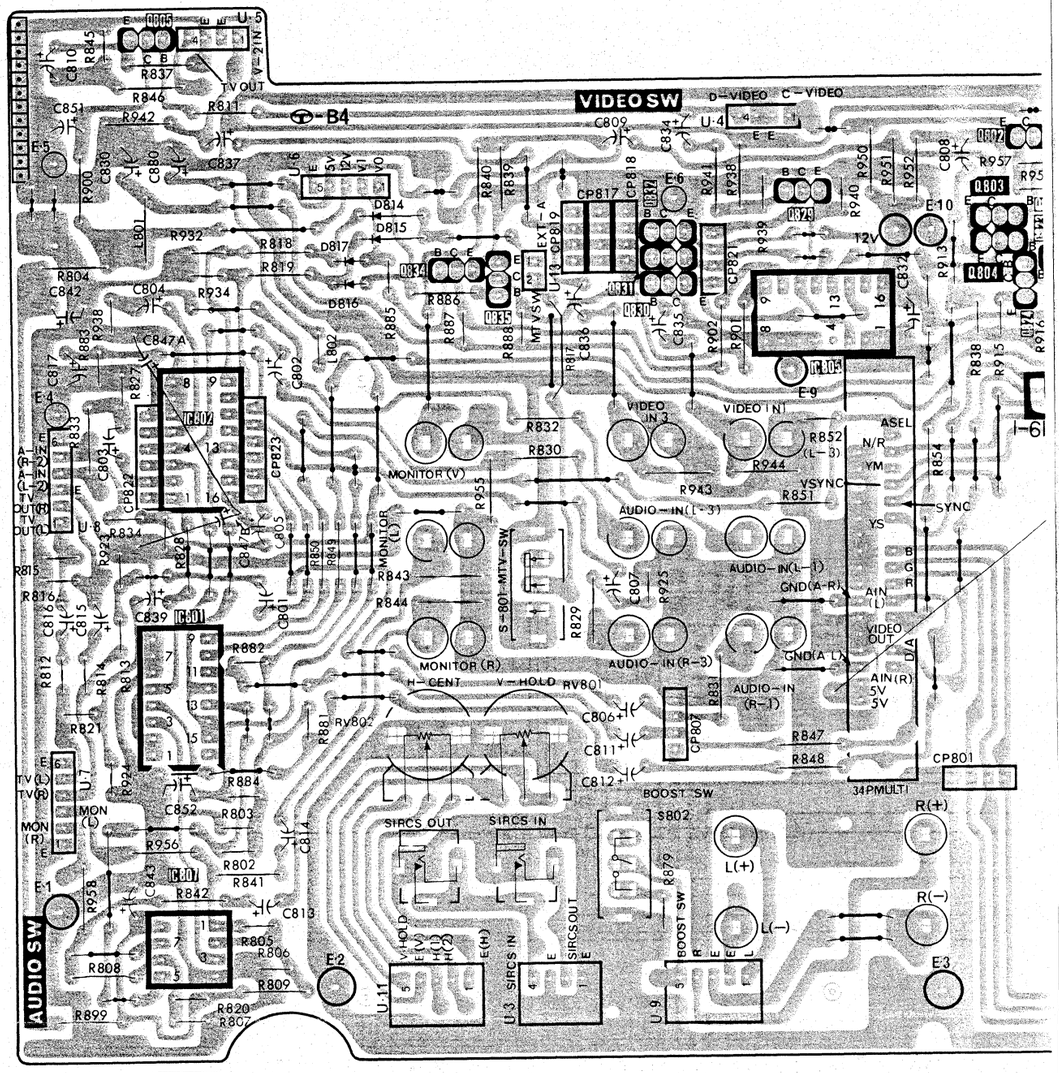
MOUNTING DIAGRAM

Note: All mounting diagrams are viewed from conductor side.

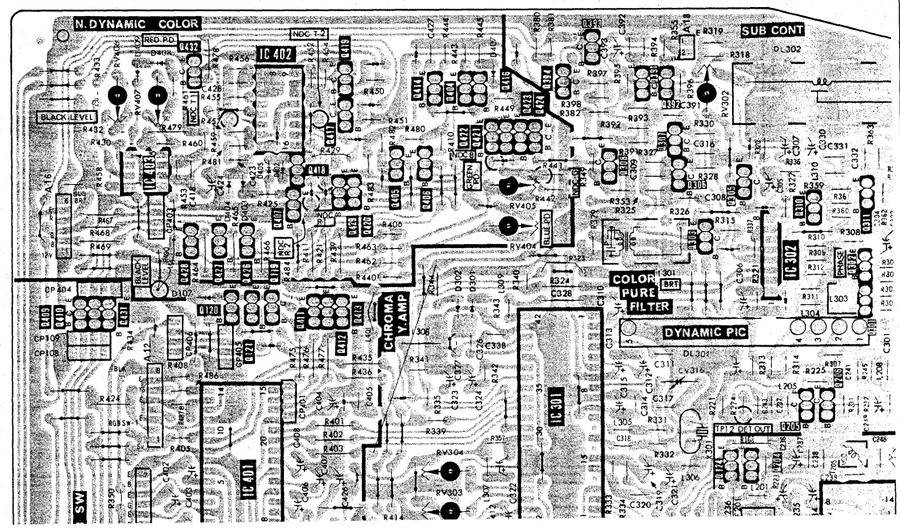
X [MTS DECODER AUDIO CONTROL / AUDIO OUT]



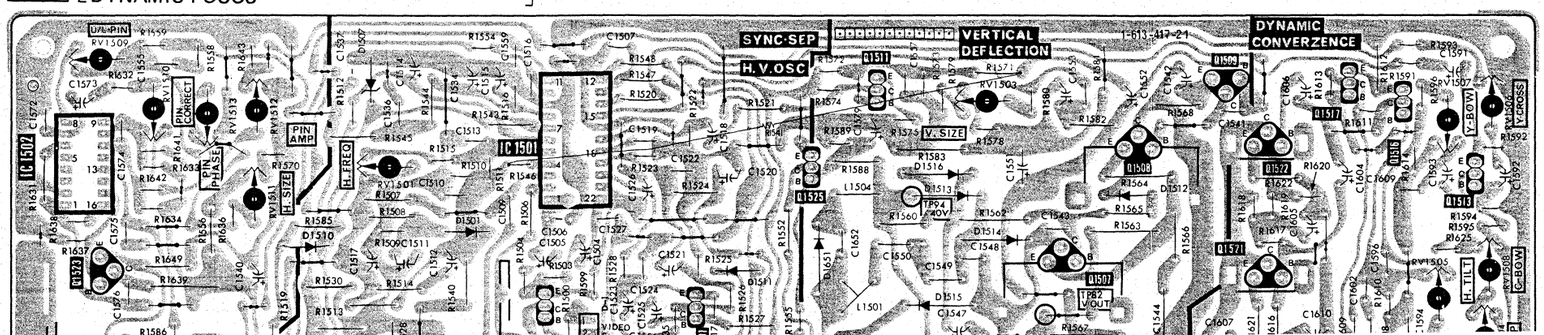
U [VIDEO SW, AUDIO SW, MTV SW RGB 34PIN, VIDEO–1,3, AUDIO–1,3, MONITOR V, MONITOR A, V·HOLD, H·CENT]

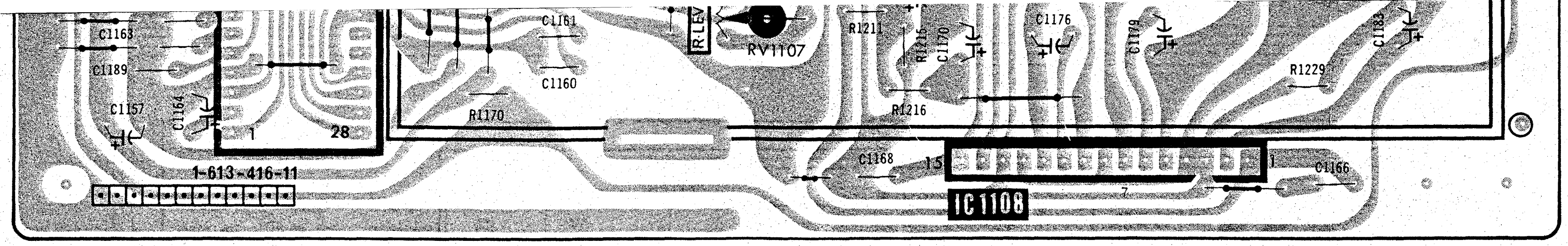


A [VIF, SIF, Y CHROMA, RGB, SW, BAND. SW / PLL CONTROLLER, DISPLAY]

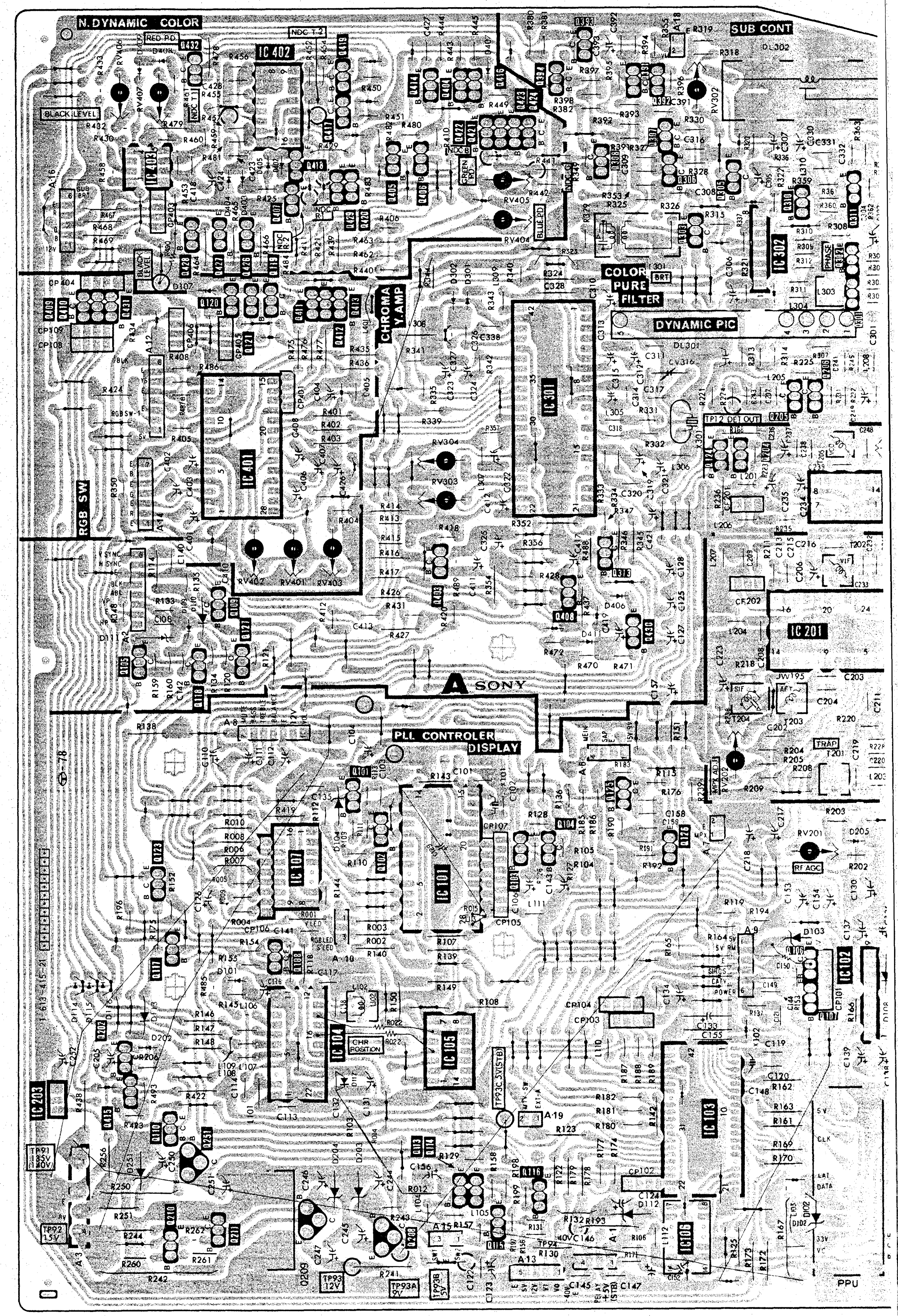


D [POWER SUPPLY, H.DEF·V· DET. HV OSC / PIN CORRECTION, DYNAMIC CONVERGENCE / DYNAMIC FOCUS]

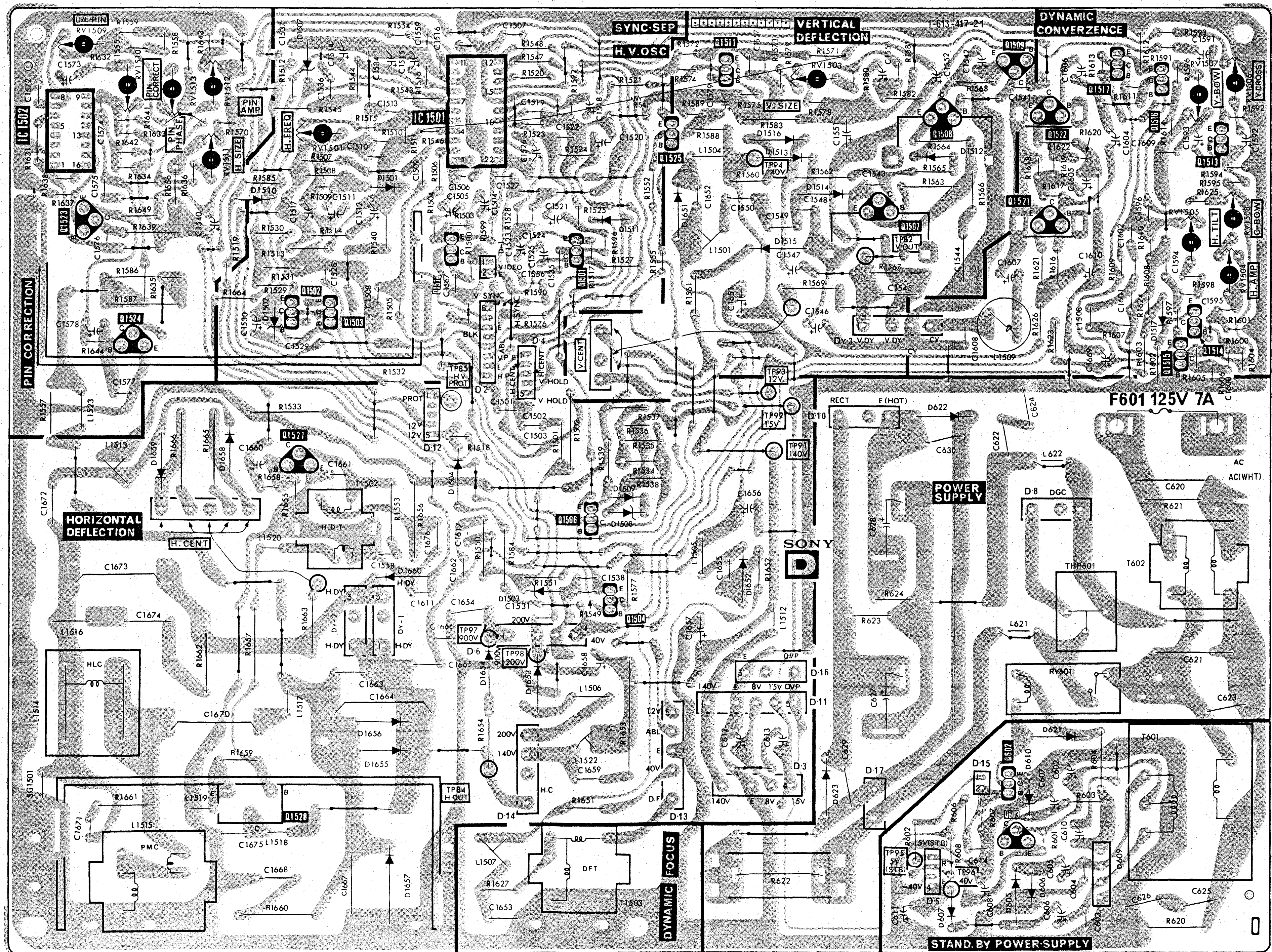




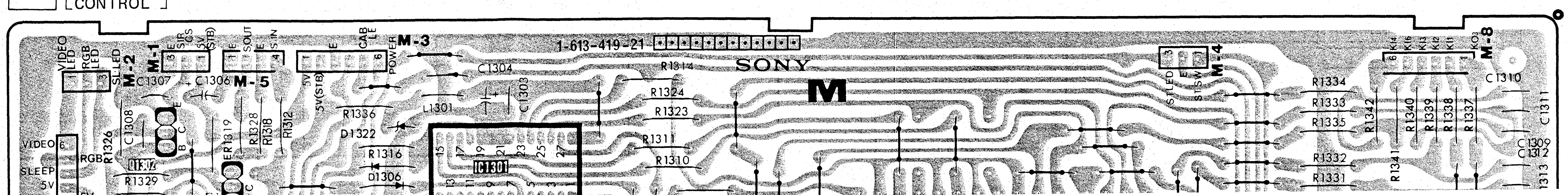
A [VIF, SIF, Y CHROMA, RGB, SW, BAND. SW
PLL CONTROLLER, DISPLAY]



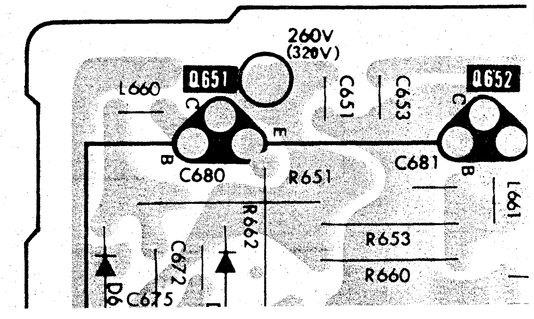
D [POWER SUPPLY, H.DEF·V· DET. HV OSC
PIN CORRECTION, DYNAMIC CONVERGENCE
DYNAMIC FOCUS]

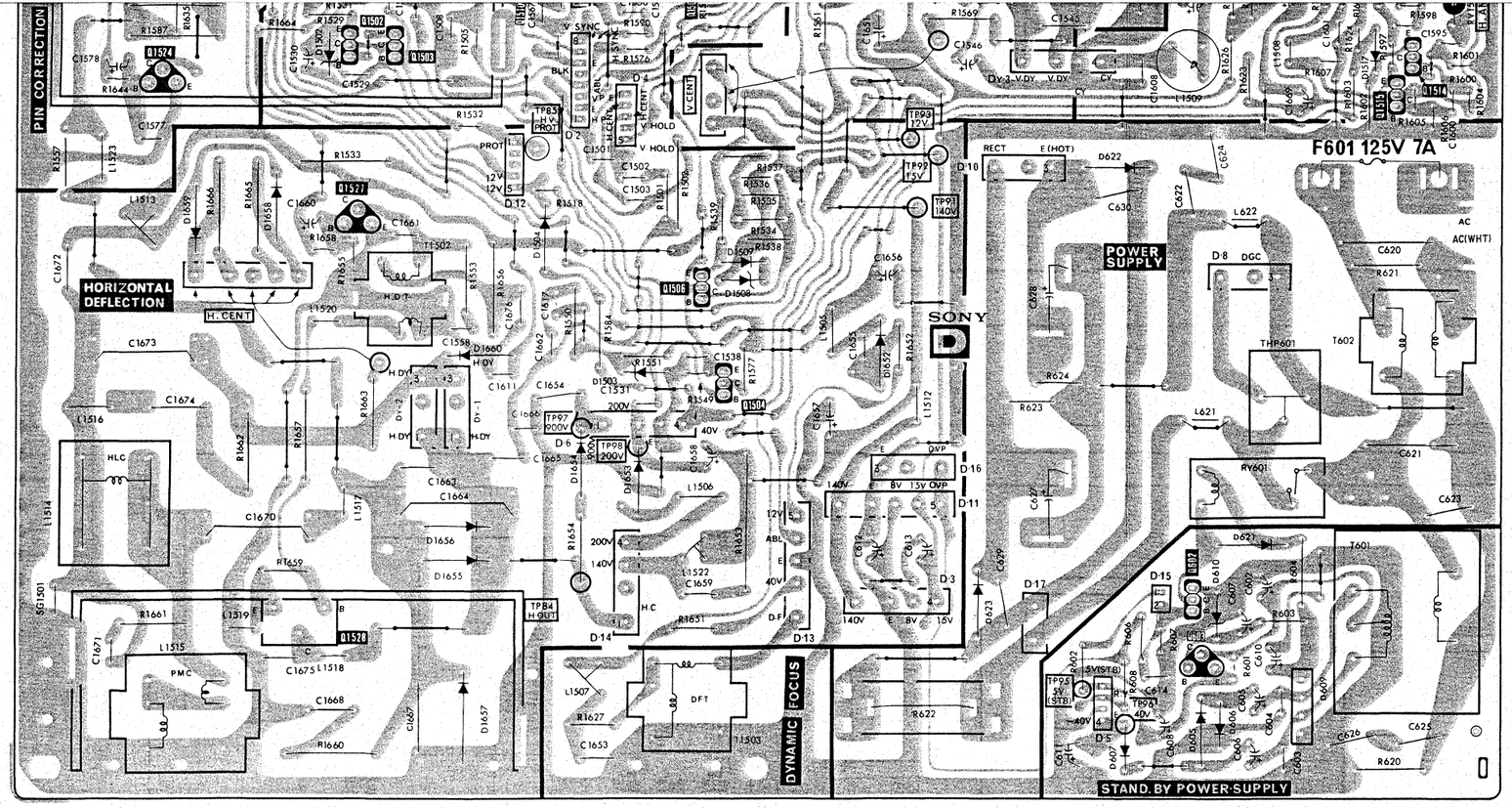


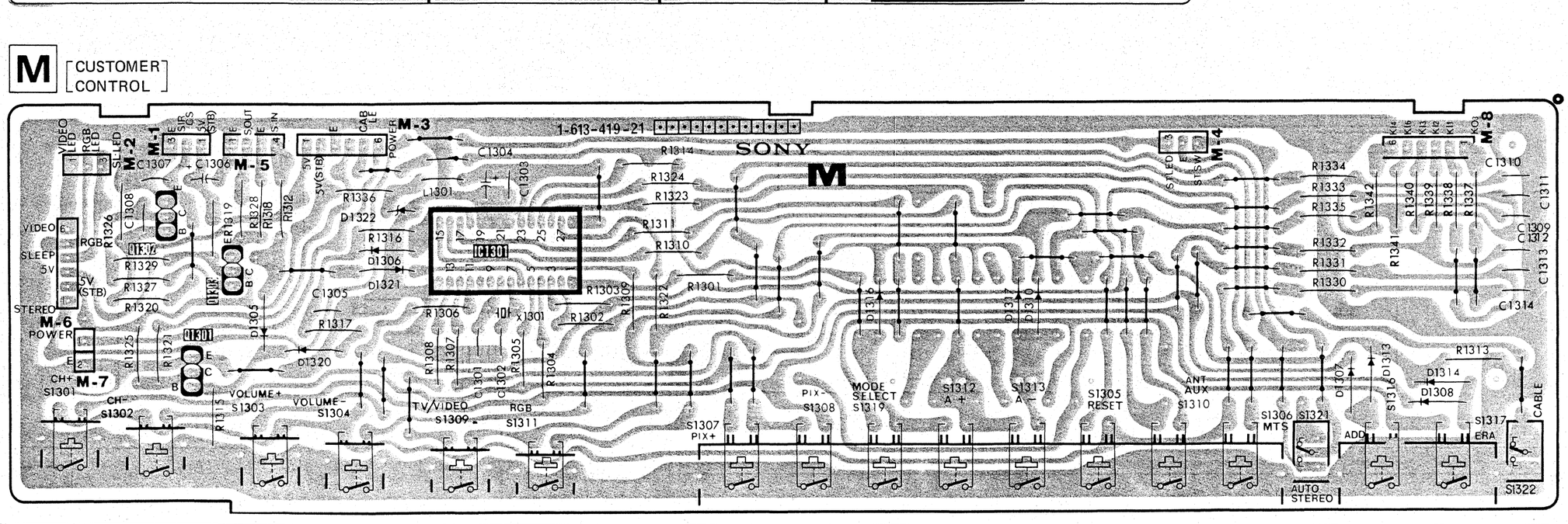
M [CUSTOMER
CONTROL]



GA [CONVERTER]



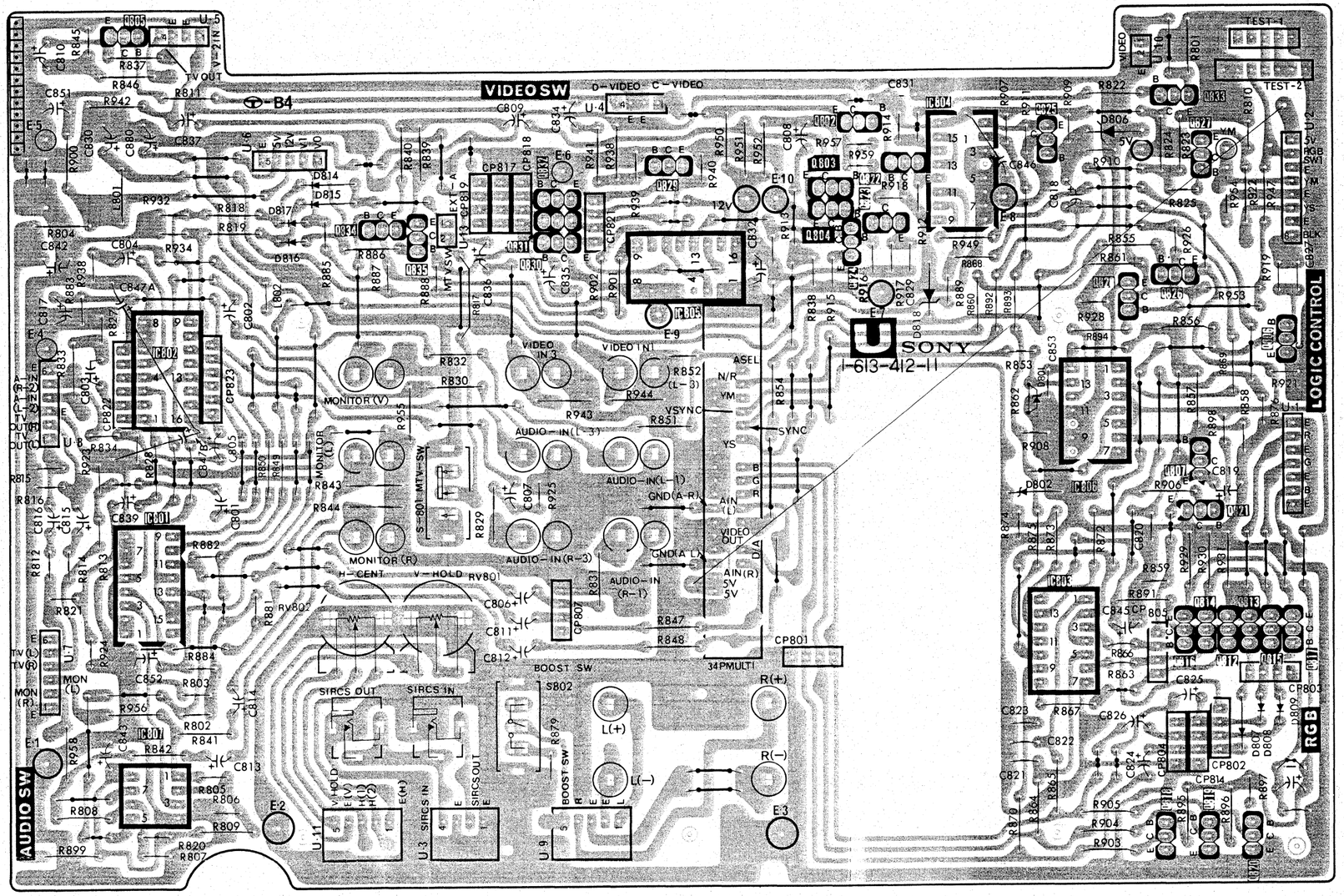

PIN CORRECTION
HORIZONTAL DEFLECTION
H. CENT
H. DT
HLC
PMC
DFT
H.C
DYNAMIC FOCUS
SONY
D
POWER SUPPLY
F601 125V 7A
AC
AC(WHT)
RECT
E (HOT)
THP601
RY601
STAND. BY POWER SUPPLY
V SYNC
V. CENT
V HOLD
H. CENT
PROT
BLK
TPB3 H.V. PROT
TPB4 H OUT
TP93 12V
TP92 15V
TP91 140V
TP97 200V
TP98 200V
TP95 5V STB
TP96 40V
TP94 8V
TP99 5V
TP98A 5V
TP92 12V
TP93A 12V
OVP
8V 15V OVP
140V
200V
40V
12V
5V(STB)
5V SYSTEM
ABL
H.DY
V.DY
CY
DGC
RGB
PLL CONTROLER DISPLAY
SONY
A
IC 201
IC 101
IC 102
IC 103
IC 104
IC 105
IC 106
IC 107
IC 203
H POSITION
TP93E SYSTEM
RF AGC
TRAP
PPU
G-78


M
[CUSTOMER CONTROL]
1-613-419-21
SONY
M
M-1
M-2
M-3
M-4
M-5
M-6
M-7
M-8
VIDEO LED
RGB LED
SLEEP LED
SLEEP
5V
5V (STB)
STEREO
POWER
CH+ S1301
CH- S1302
VOLUME+ S1303
VOLUME- S1304
TV/VIDEO S1309
RGB S1311
PIX+ S1307
PIX- S1308
MODE SELECT S1319
S1312 A+
S1313 A-
S1305 RESET
ANT AUX S1310
S1306 MTS
S1321 ADD
S1318
D1307
D1313
D1314
D1308
S1317 ERA
CABLE
S1322
AUTO STEREO
IC1301
X1301
GA
[CONVERTER]
260V (320V)
Q651
Q652
L660
C680
C681
C651
C653
R651
R653
R660
R652
C675
C676
D651
D652
L651
C654
R655
C652
T651 CRT

9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

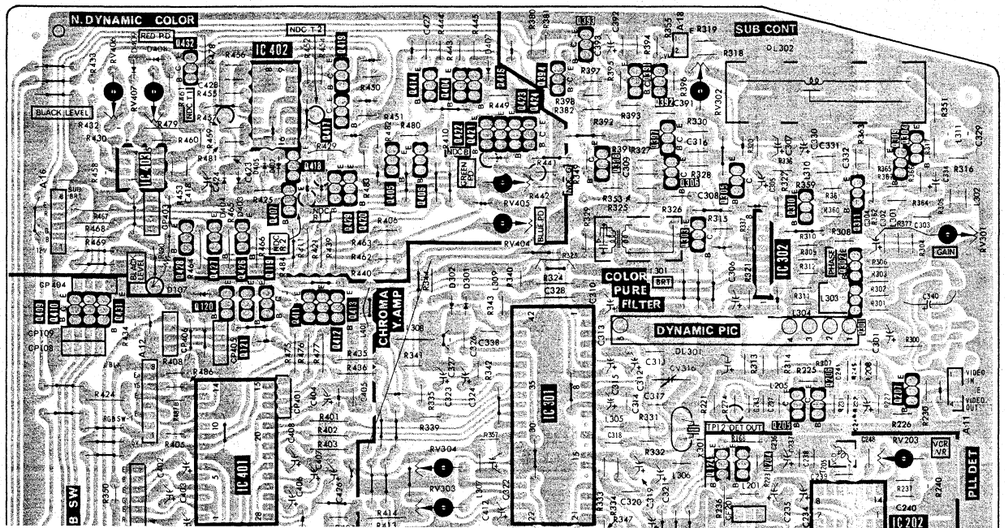
U

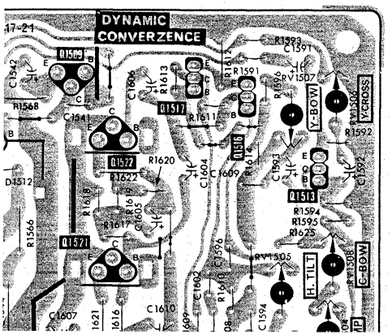
VIDEO SW, AUDIO SW, MTV SW RGB 34PIN,
VIDEO–1,3, AUDIO–1,3, MONITOR V, MONITOR A,
V·HOLD, H·CENT



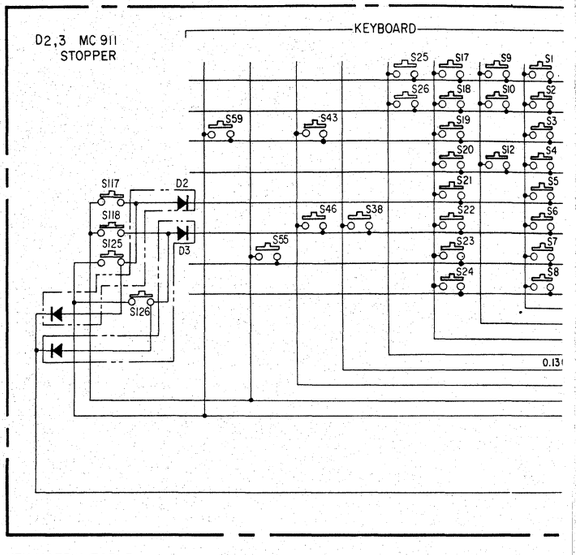
A

VIF, SIF, Y CHROMA, RGB, SW, BAND. SW
PLL CONTROLLER, DISPLAY





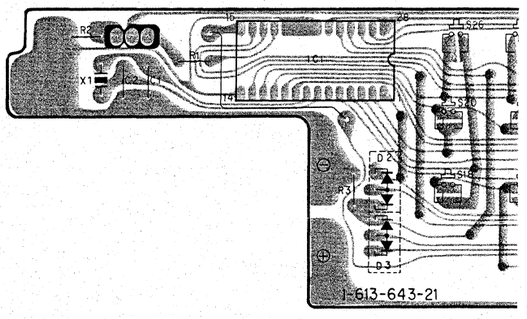
REMOTE COMMANDER RM-724



KEY MATRIX TABLE

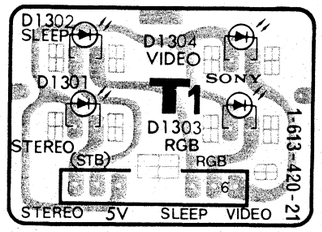
	KO1		KO2		KO3		KO4		KO5		KO6	
KI1	S1	1	S9	9	SI7	CH +	S25	PICTURE +	S33		S41	
KI2	S2	2	S10	0	SI8	CH –	S26	PICTURE –	S34		S42	
KI3	S3	3	S11		S19	VOL +	S27		S35		S43	ANT
KI4	S4	4	S12	ENTER	S20	VOL –	S28		S36		S44	
KI5	S5	5	S13		S21	MUTING	S29		S37		S45	
KI6	S6	6	S14		S22	POWER	S30		S38	TV/VIDEO	S46	R G
KI7	S7	7	S15		S23	RESET	S31		S39		S47	
KI8	S8	8	S16		S24	MTS	S32		S40		S48	

RC



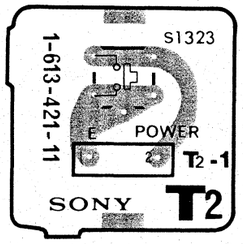
T1

[LED, DISPLAY]



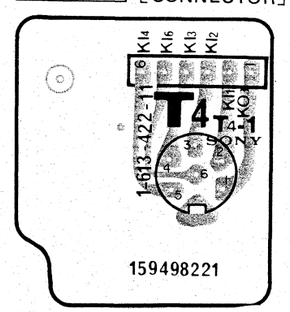
T2

[POWER CONTROL]



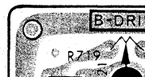
T4

[CONNECTOR]



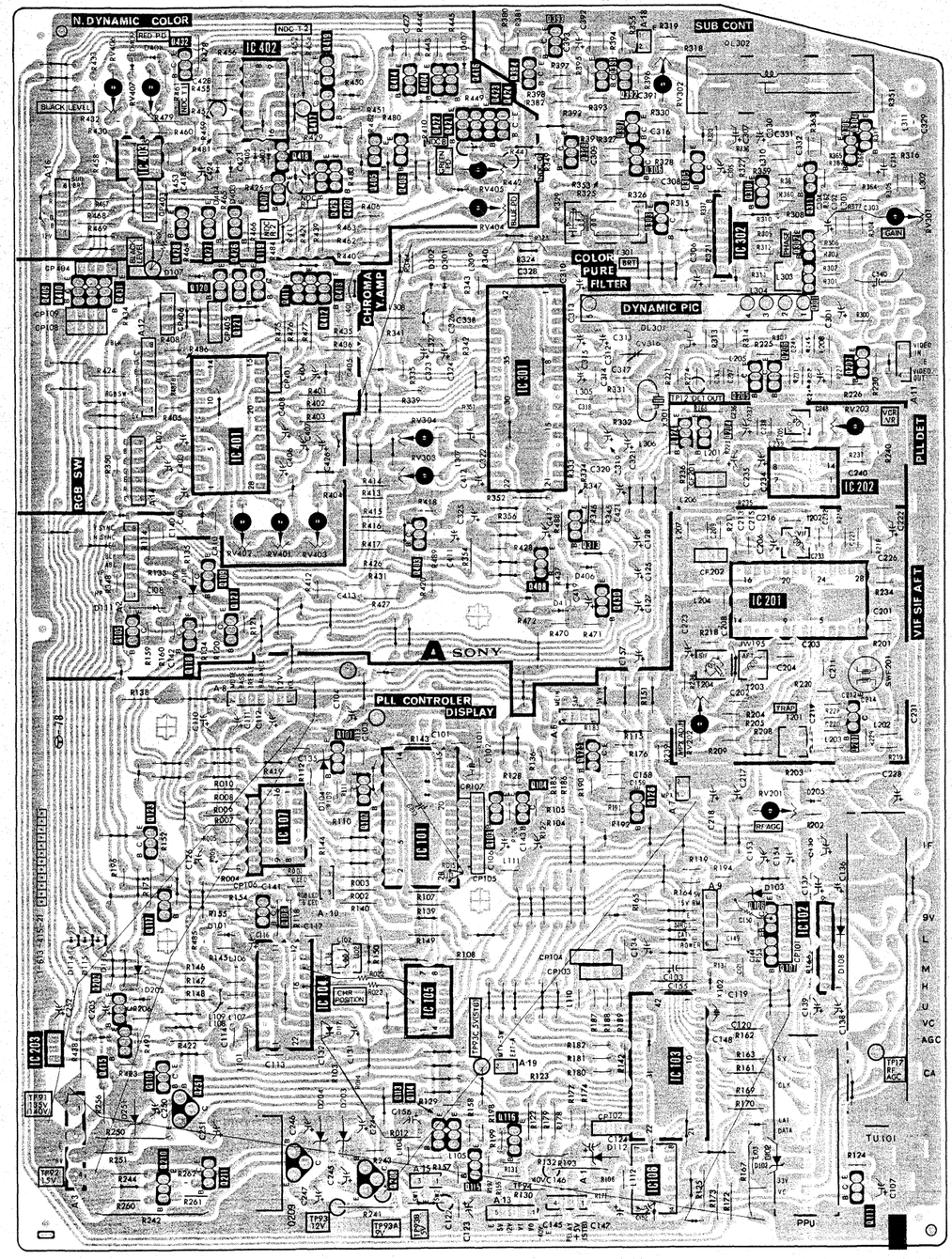
C

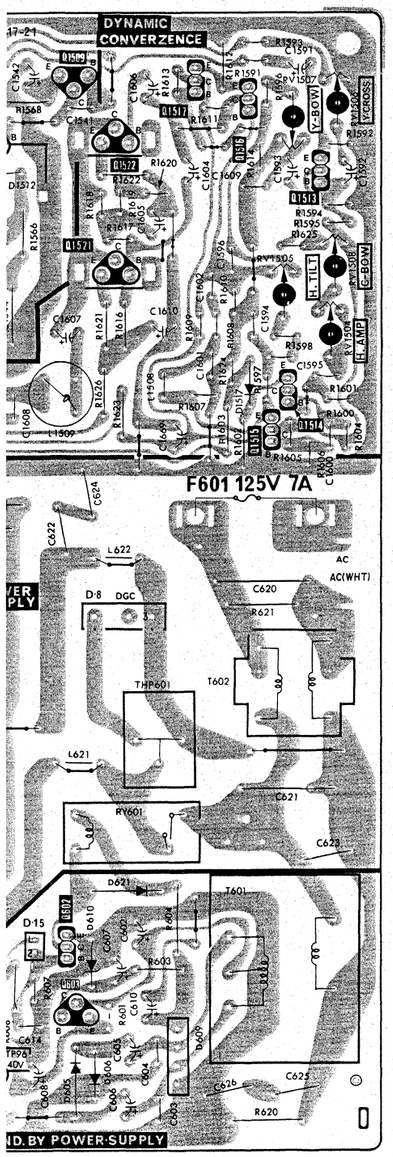
[R·G·B OUT, VM]



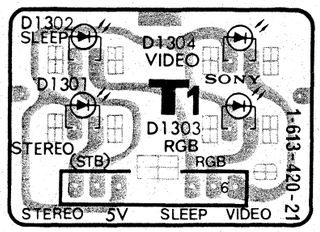
N

A [VIF, SIF, Y CHROMA, RGB, SW, BAND. SW / PLL CONTROLLER, DISPLAY]

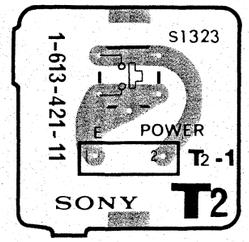




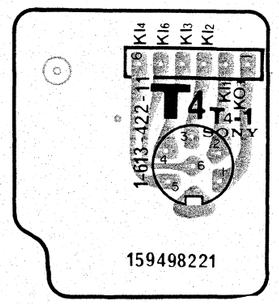
T1 [LED, DISPLAY]



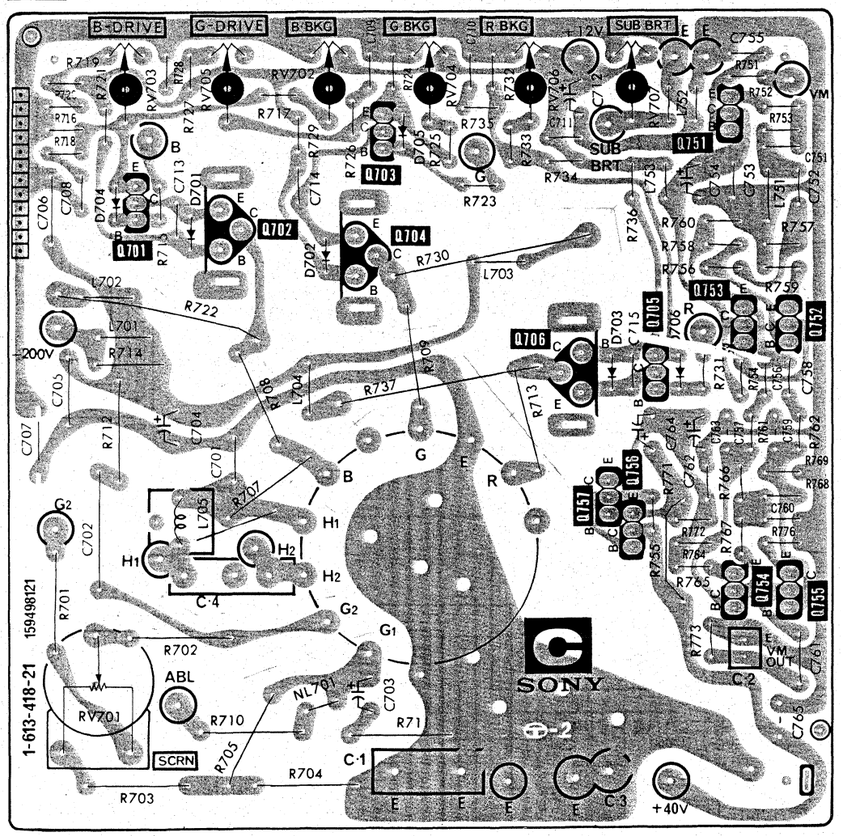
T2 [POWER CONTROL]



T4 [CONNECTOR]

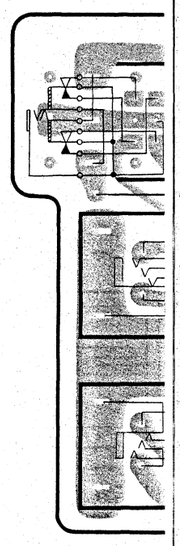


C [R·G·B OUT, VM]



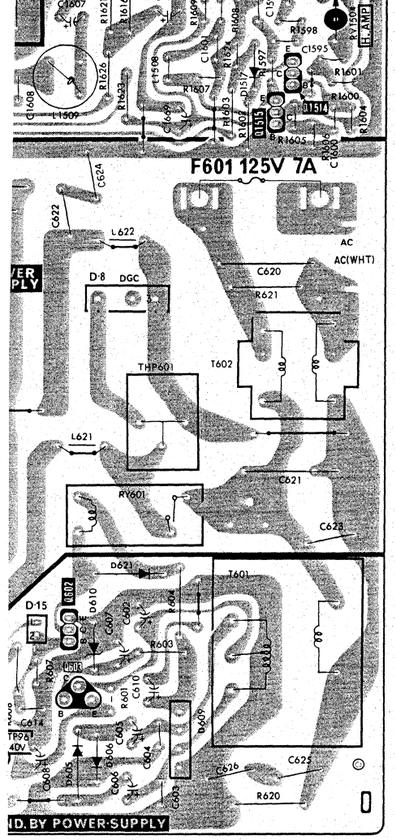
N

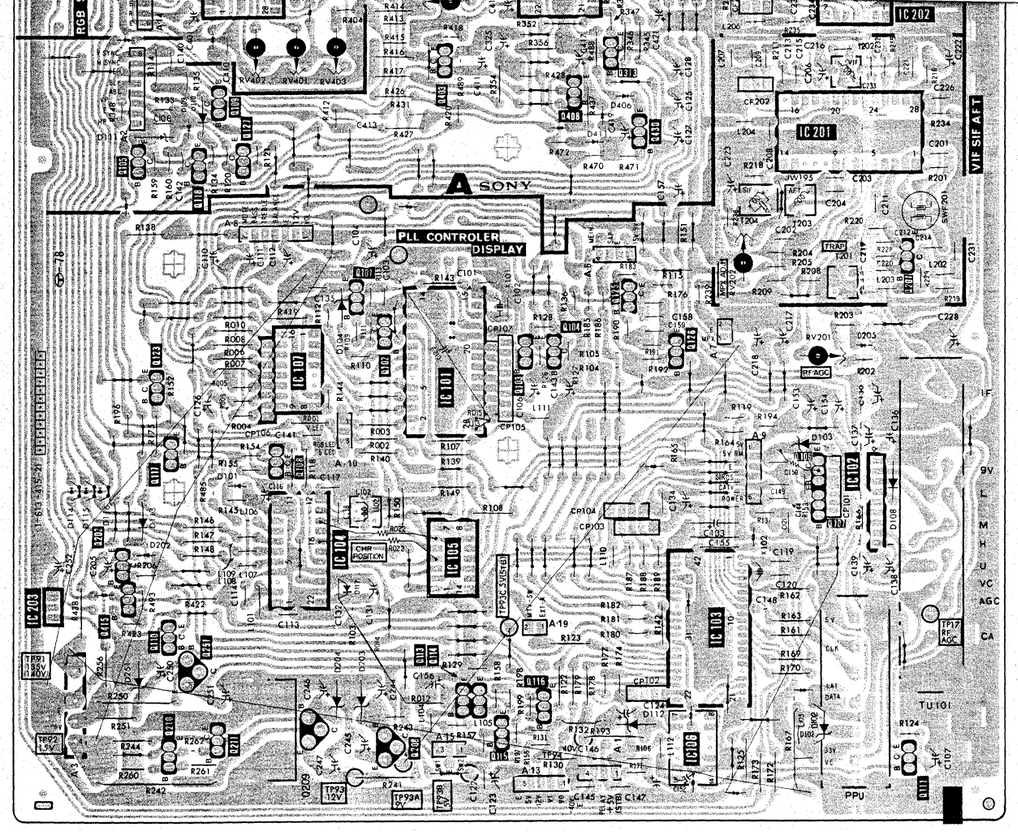
Z [PHONE / VIDEO]

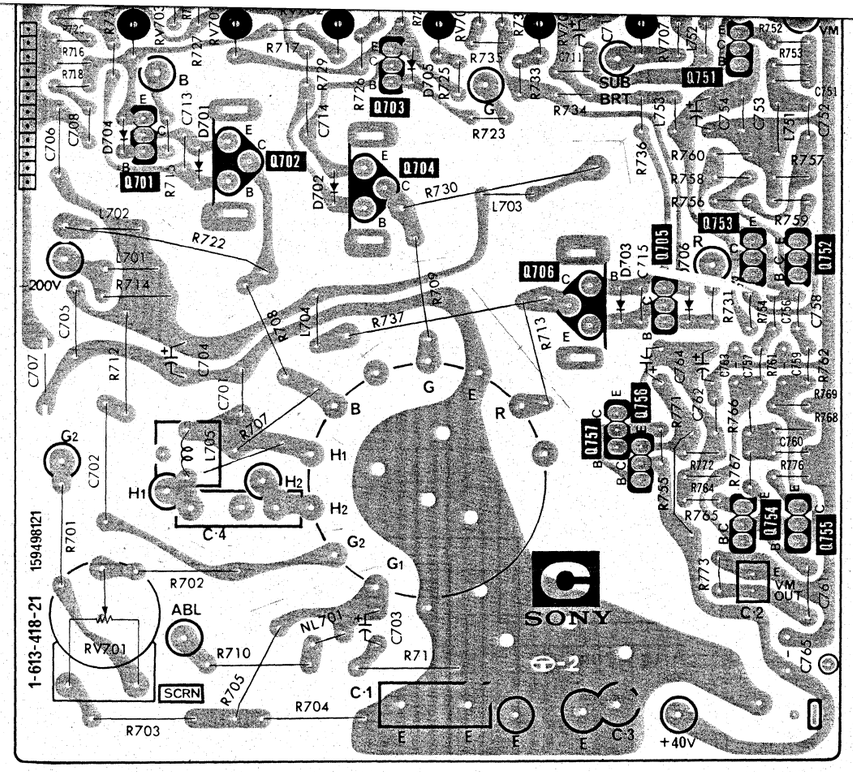


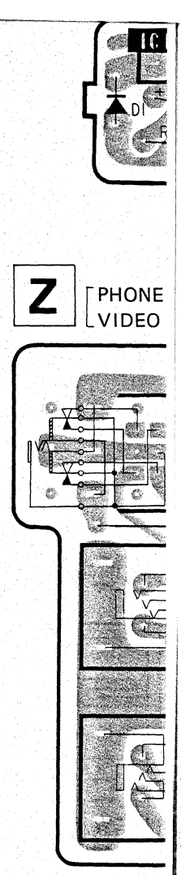
GA [CONVERTER]

GB [140V REG, 140V RECT, 16V RECT / 8V RECT, 30V RECT]



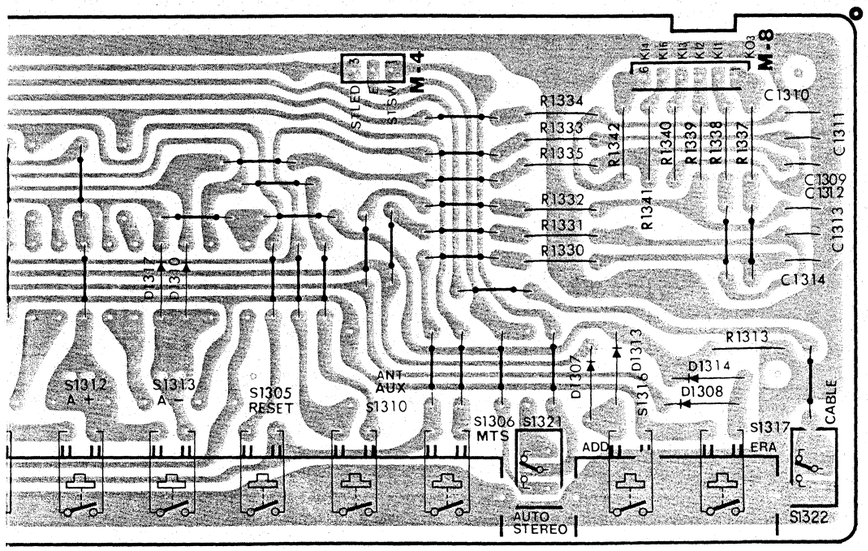


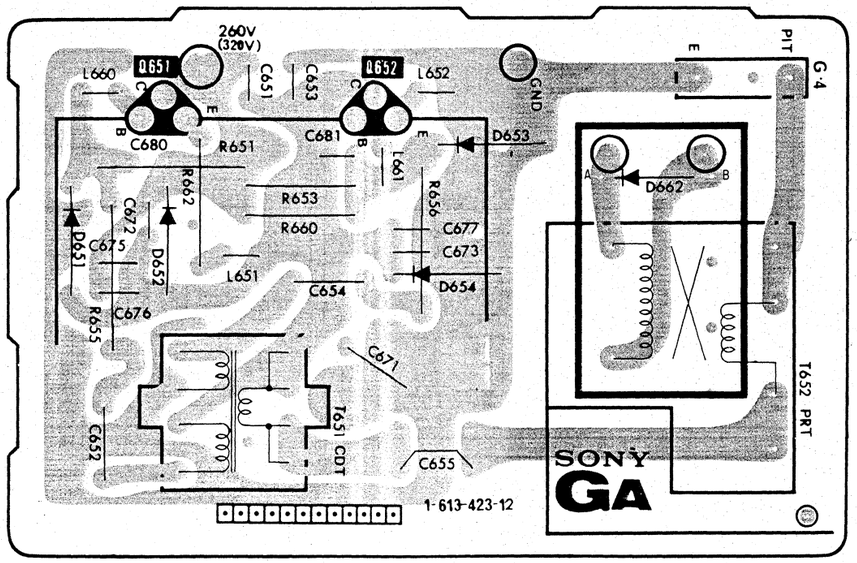


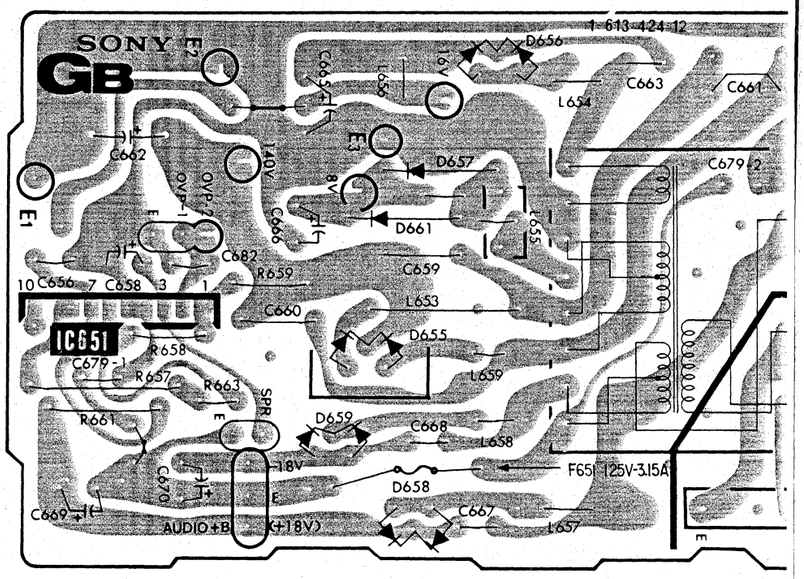


GA [CONVERTER]

GB [140V REG, 140V RECT, 16V RECT
8V RECT, 30V RECT]

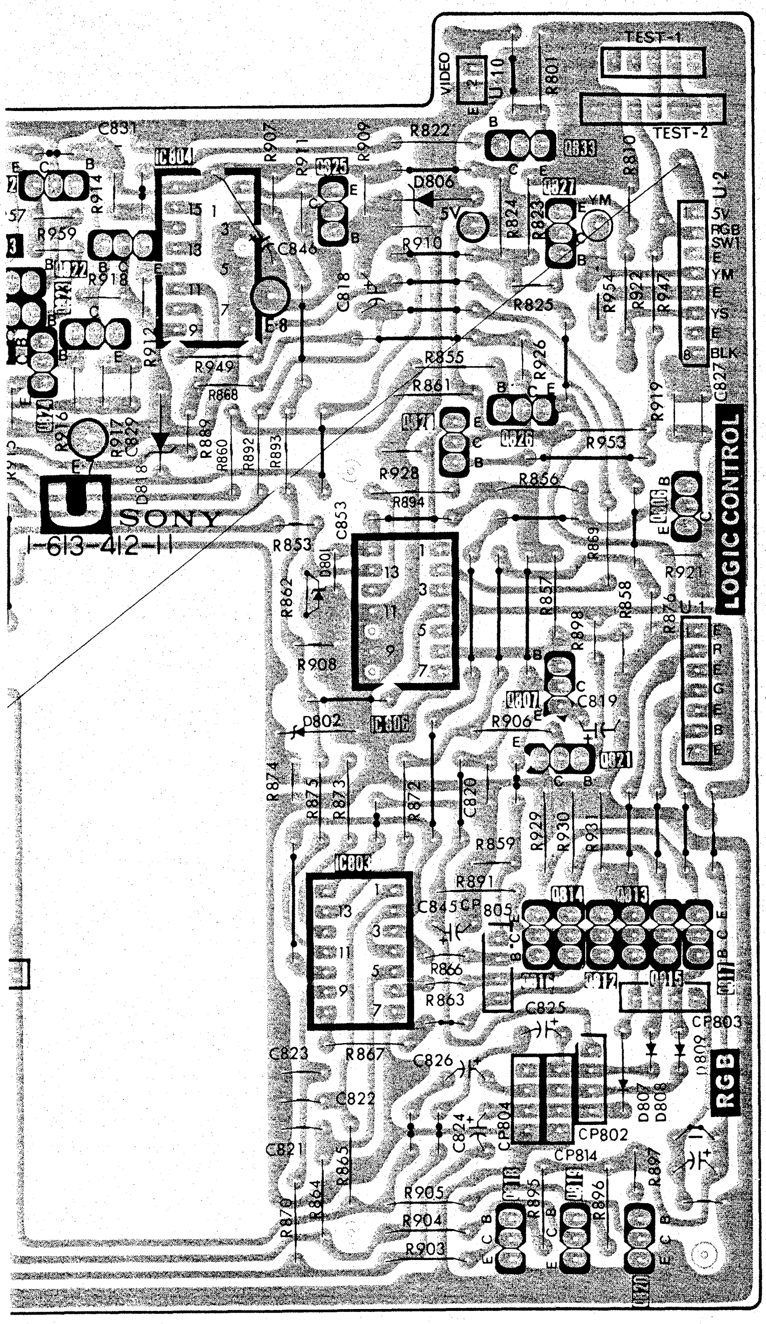




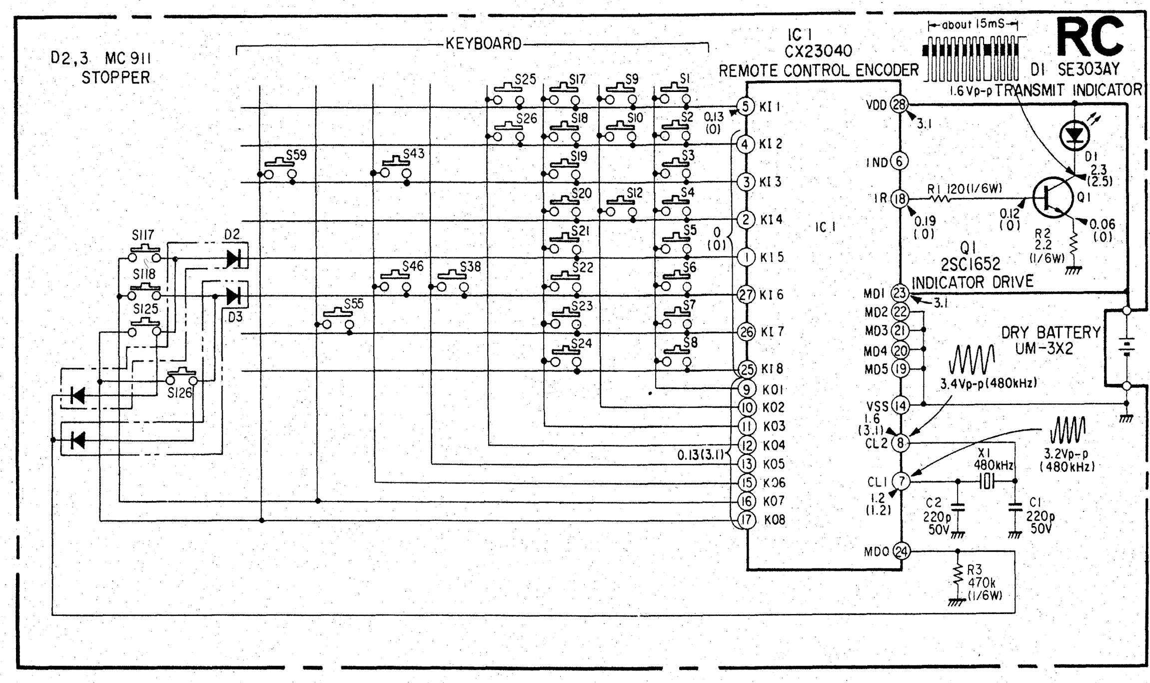


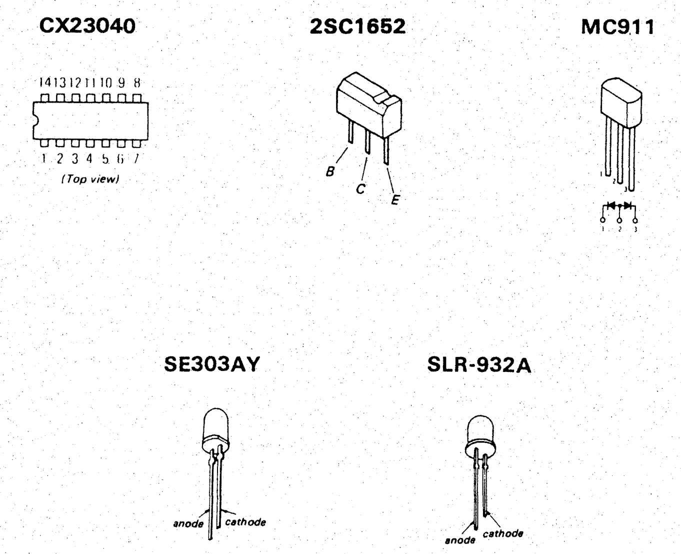
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32



REMOTE COMMANDER RM-724

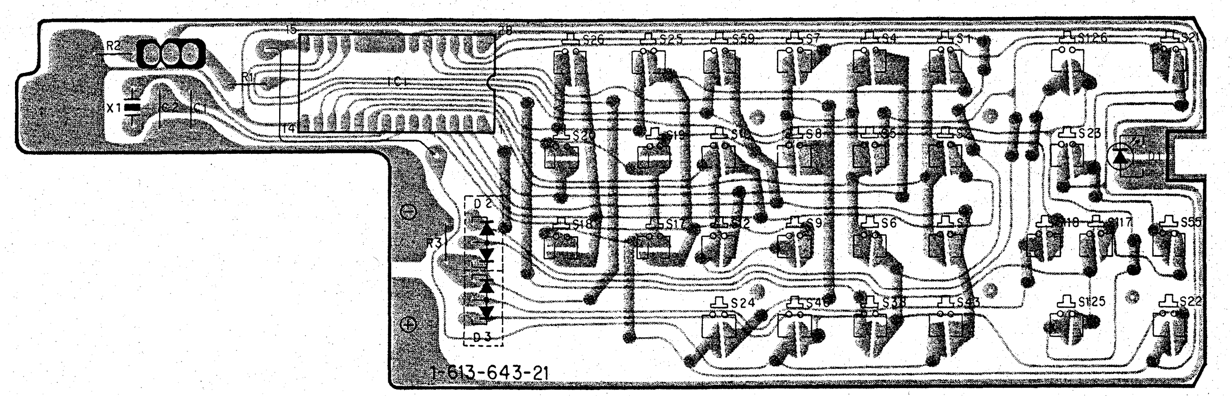




KEY MATRIX TABLE

	K01		K02		K03		K04		K05		K06		K07		K08			
KI1	S1	1	S9	9	S17	CH +	S25	PICTURE +	S33		S41		S49		S57		S117	LEVEL + (R)
KI2	S2	2	S10	0	S18	CH −	S26	PICTURE −	S34		S42		S50		S58		S118	LEVEL − (L)
KI3	S3	3	S11		S19	VOL +	S27		S35		S43	ANT/AUX	S51		S59	DISPLAY	S125	SELECT
KI4	S4	4	S12	ENTER	S20	VOL −	S28		S36		S44		S52		S60		S126	TRINITONE
KI5	S5	5	S13		S21	MUTING	S29		S37		S45		S53		S61			
KI6	S6	6	S14		S22	POWER	S30		S38	TV/VIDEO	S46	R G B	S50		S62			
KI7	S7	7	S15		S23	RESET	S31		S39		S47		S55	SLEEP	S63			
KI8	S8	8	S16		S24	MTS	S32		S40		S48		S56		S64			

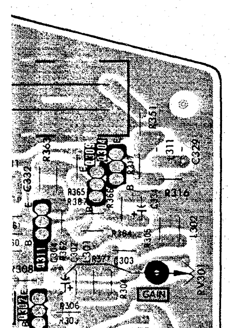
RC



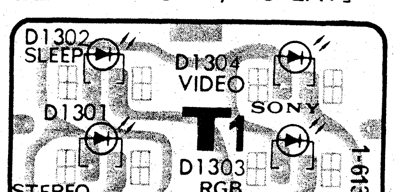
Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, 1/6W unless otherwise noted. kΩ = 1000Ω, MΩ = 1000kΩ
- Voltages and waveform are for when [1] button is pressed.
- Voltages in ( ) are taken with button not pressed.
- All voltages are in V.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- —— : B + bus.

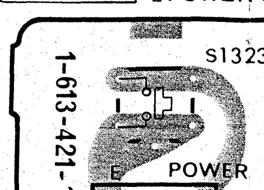
A | B | C | D | E | F | G | H | I | J



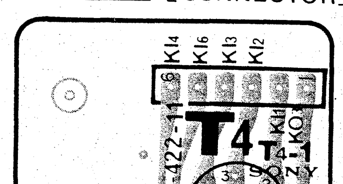
T1 [LED, DISPLAY]



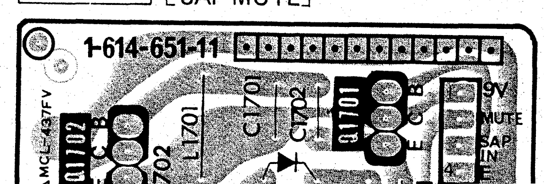
T2 [POWER CONTROL]



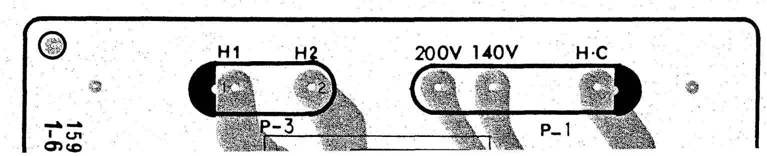
T4 [CONNECTOR]

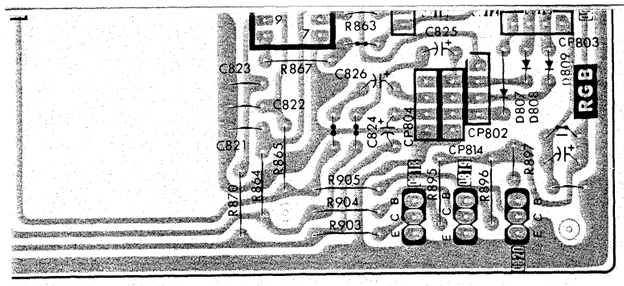


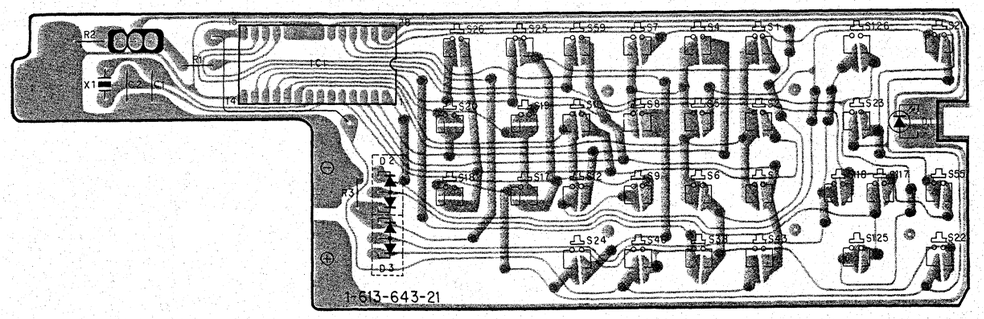
XA [SAP MUTE]



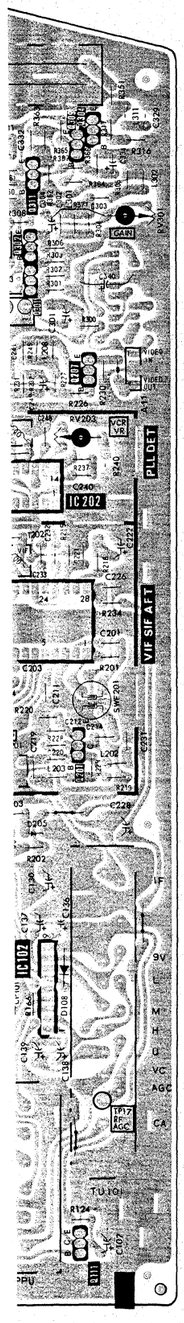
P [FBT]



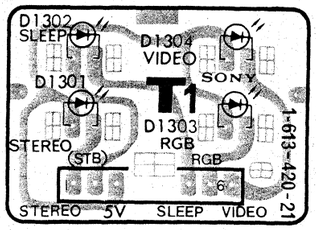




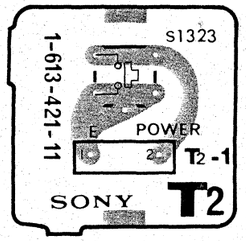
- Voltages and waveform are for when [1] button is pressed.
- Voltages in ( ) are taken with button not pressed.
- All voltages are in V.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- —— : B + bus.



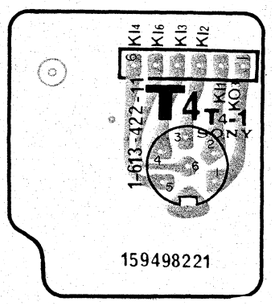
T1 [LED, DISPLAY]



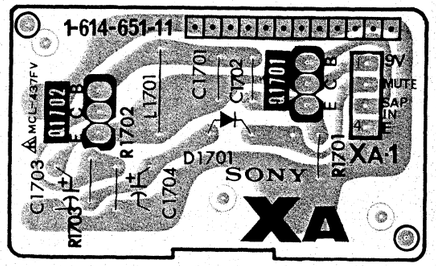
T2 [POWER CONTROL]



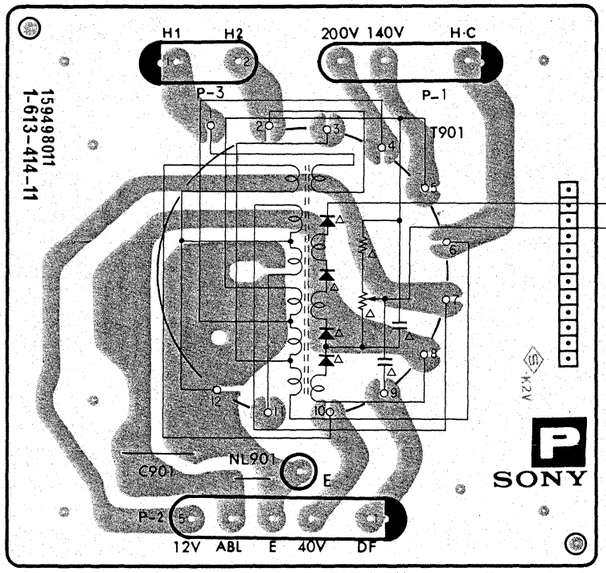
T4 [CONNECTOR]



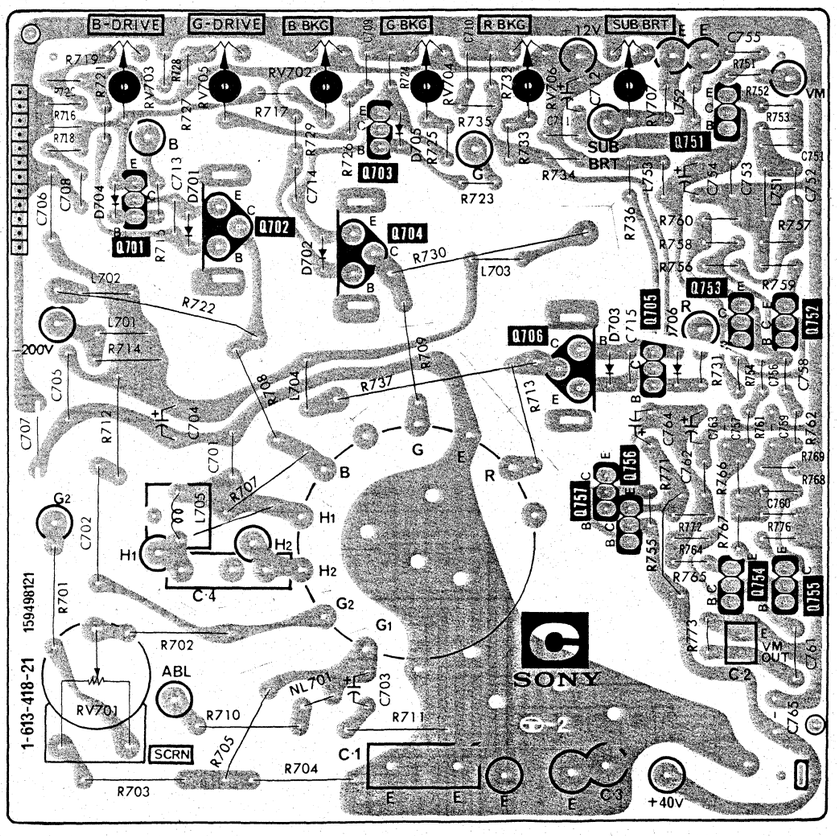
XA [SAP MUTE]



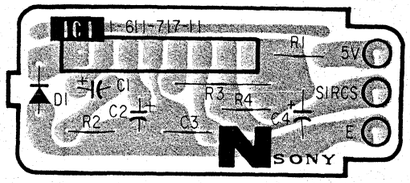
P [FBT]



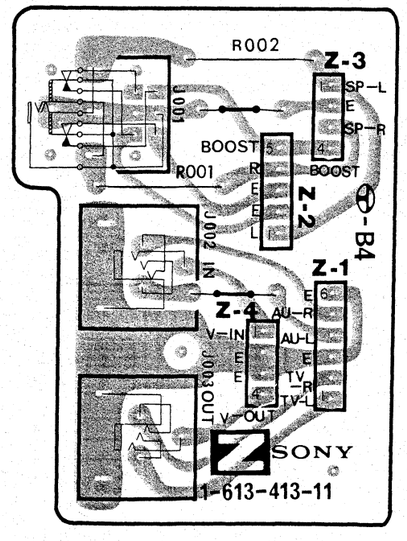
C [R·G·B OUT, VM]



N [REMOTE CONTROL] [HEAD AMP]

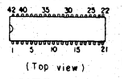


Z [PHONE JACK TV OUT] [VIDEO 2 IN]



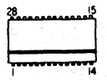
GB [140V REG, 140V RECT, 16V RECT] [8V RECT, 30V RECT]

AN6291
CX530-507N
CX-848

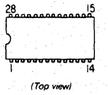


AN78L05
NJM78L05A

CX10026

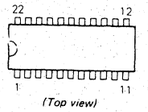


CX20014A
CX20100
CX20125
CX526-025

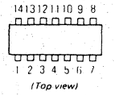


CX20106

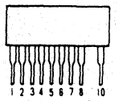
CX-7958
μPC1377C



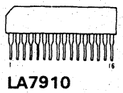
CXK1001P



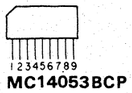
DM-21



LA3375



LA7910



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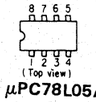
TC4052BP
TC4053BP
TDA1082
μPD4052BC

TA7133P

TL4558P-B
μPC4558C



μPC78L05A

2SA1026

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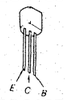
2SA1115
2SC2458
2SC2603
2SC2669

2SA733
2SC1363

2SB734
2SC2958
2SC2959
2SD774

2SB740
2SC1475
2SD788
2SD789



2SC1652

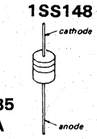
2SC2901

2SD1497

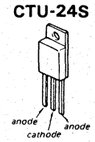
10E2
EQA02-12B5
EQA02-32A
ES1F
GP08D
HZT33-02
RGP01-17

1S1555
EQA02-05A5
EQA02-05F5
EQA02-06A5
EQA02-06D5
EQA02-10B5
RD10EN3
RD13EN2
RD24EBZ7
RD33EB2
RD33EB3
RD3.6E-N1
RD3.6E-N2
RD3.9EN2

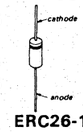
1SS119
1SS120
1SS133
1SS148



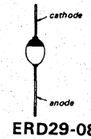
CTL-12S
CTU-24S



EM-1ZS
RM2CS



ERC26-15S

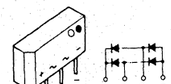


ERD29-08J
cathode

PH302B

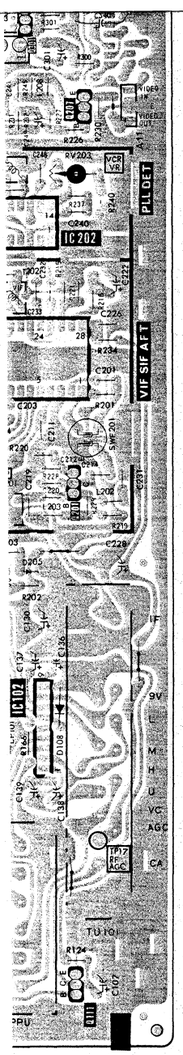
RH-1A
RH-1Z
RU-2M
SIB01-02

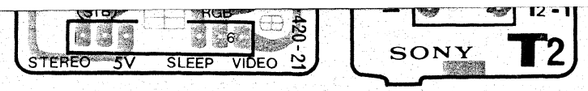
S1VB10-S
S1VB20

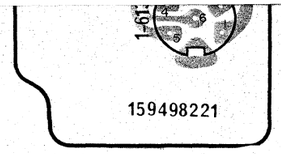


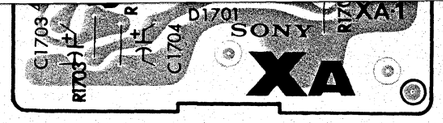
SR632D

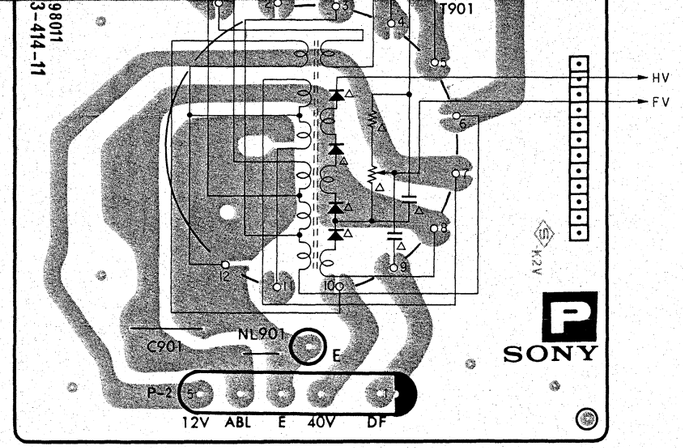
SY432D



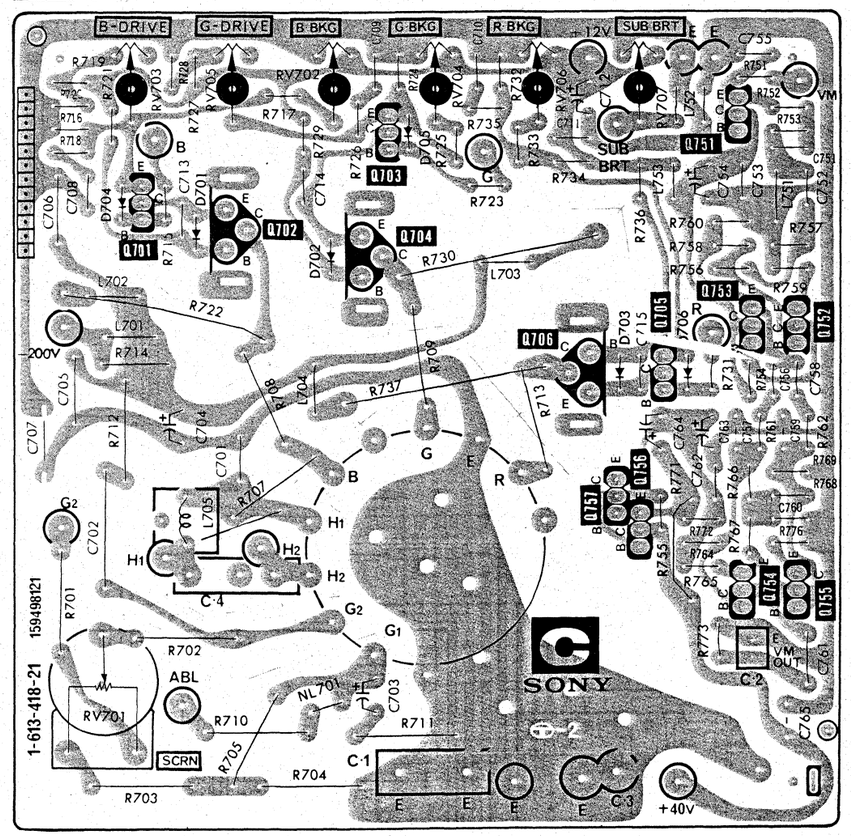




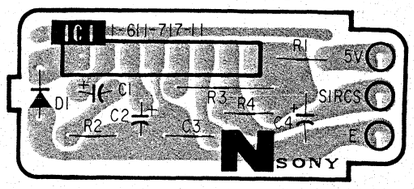




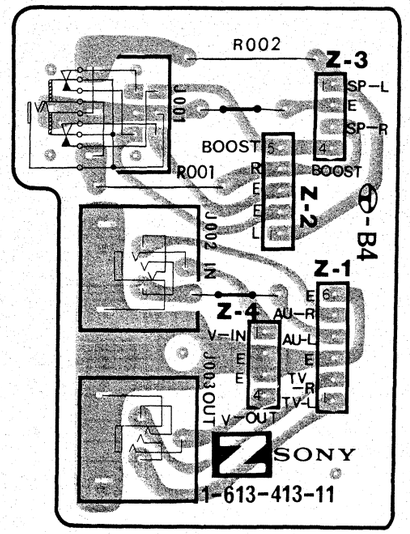
C [R·G·B OUT, VM]



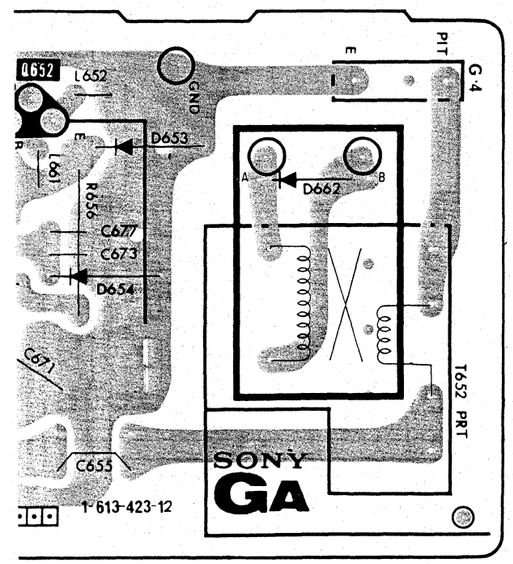
N [REMOTE CONTROL HEAD AMP]

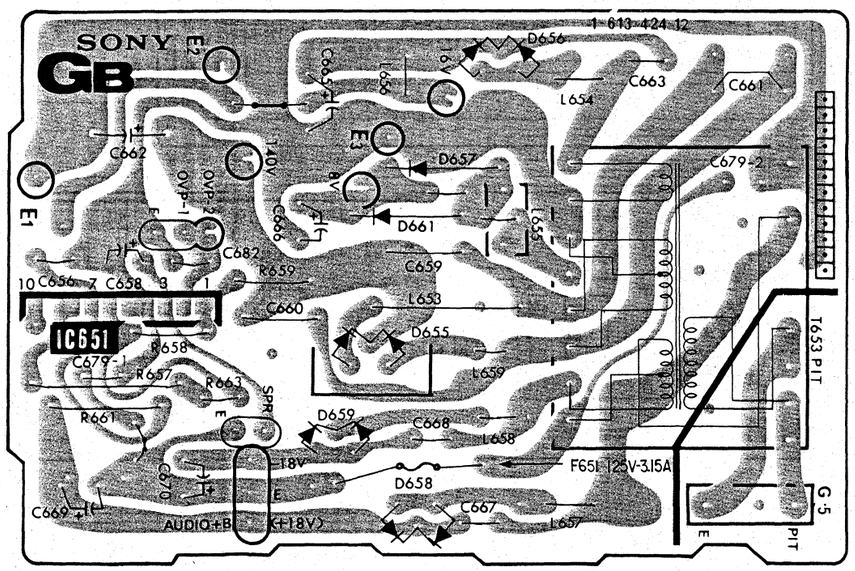


Z [PHONE JACK TV OUT VIDEO 2 IN]



GB [140V REG, 140V RECT, 16V RECT 8V RECT, 30V RECT]





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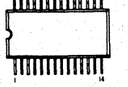
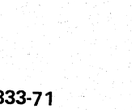
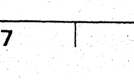
CX530-507N
CX-848



AN78L05
NJM78L05A



CX10026



CX20014A
CX20100
CX20125
CX526-025

CX20106

CX20139
SN74LS05N
SN74LS09N
TC4066BP
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CX23040

CX-7958
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TL4558P-B
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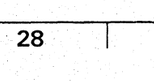
CXK1001P



DM-21

LA3375

LA7910

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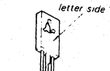
STK-4362

TA7133P



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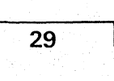

2SA1048
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2SC2603
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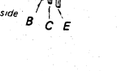

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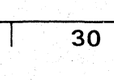

2SC1652

2SC2901

2SC3163
2SC3317

2SD1406
2SD880

2SD1497

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EQA02-32A
ES1F
GP08D
HZT33-02
RGP01-17

1S1555
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EQA02-05F5
EQA02-06A5
EQA02-06D5
EQA02-10B5
RD10EN3
RD13EN2
RD24EBZ7
RD33EB2
RD33EB3
RD3.6E-N1
RD3.6E-N2
RD3.9EN2
RD4.7EN2
RD5.6EB2
RD5.6EBZ7S
RD5.6EL2
RD5.6EN1
RD5.6EN2
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RD6.2EN2
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RD6.2E-B

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1SS120
1SS133
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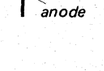
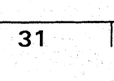


CTL-12S
CTU-24S

EM-1ZS
RM2CS



ERC26-15S

ERD29-08J

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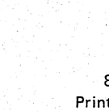
RH-1A
RH-1Z
RU-2M
SIB01-02



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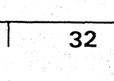
S1VB20



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